AUBREY STANHOPE: ONE WAR AND THREE AIR FORCES

AIR
Where History Flies
CLASSICS

MAY 2025 · Vol.61/No.5

LAST GREAT AMERICAN FLYING BOAT

WE GO ON THE FINAL FLIGHT OF THE MIGHTY MARTIN JRM-3 MARS

“FILL ’ER UP!”

CONTINUING AMERICA’S ROADSIDE AVIATION ATTRACTIONS

PROPLINER HAVEN

SOUTH AFRICA’S BIG PROPS AT RAND

COLORS OF WAR

MORE ALLIED AND AXIS WWII AIRCRAFT

CHALLENGE PUBLICATIONS, INC.
www.challengeweb.com

U.S./CANADA $9.99
05
0 74666 02558 5

34th Annual

WORLD WAR II WEEKEND

JUNE 6, 7, 8, 2025

A Gathering of Warbirds

HL
N
Flying Dutchman

Original Artwork-David Ails

Featuring 80 WWII Aircraft, 1,500 Reenactors, 200 Military Vehicles, Entertainers, 3 Big Bands, WWII era Special Guests, 250 Military Flea Market Vendors, Over 20 acres of WWII Encampments.

Mid Atlantic Air Museum

110 Air Museum Drive, Reading, PA 19605
610-372-7333 www.maam.org

OV-10 SQUADRON

FOR SALE OR LEASE

OV-10 D+ BRONCOS

- FULLY RESTORED •
- GOVERNMENT CONTRACTING •
- MILITARY APPLICATIONS •
- AIRSHOW ATTRACTION •
- WARBIRD SHOWPIECE •

RANGE CLEARING
102

FLIR SURVEILLANCE

FULLY MILITARIZED

OWN OR LEASE THE WORLD'S ONLY

AEROBATIC TWIN TURBOPROP

- FULL 1-YEAR WARRANTY COVERING ALL MAINTENANCE
- CONFIG TO 8 BOMBS, 7 ROCKETS, 2000 ROUNDS, FLIR, AND LINK-16
- FLIGHT TRAINING SUPPORT AND CERTIFICATION
- VINTAGE, MODERN OR HYBRID AVIONICS
- CUSTOM PAINT ON REQUEST

VISIT:
WWW.OV10SQUADRON.COM

CONTACT:
949-205-9988 | SALES@OVSQUADRON.COM

Contents

MAY 2025
VOLUME 61 / NUMBER 5

Features

20 "FILL 'ER UP!"
Part Two of our article on the use of aviation as a roadside attraction / by Adam Stanton

28 ONE WAR, THREE AIR FORCES
WWII combat pilot Aubrey Stanhope flew with the air forces of France, Britain, and the United States / by Steve Blake

36 THE LAST GREAT AMERICAN FLYING BOAT
In our extra-long feature, we examine the life and times of the mighty Martin Mars. An extremely efficient transport for the post-war Navy, the surviving aircraft were repurposed to fight man's oldest enemy. We accompany the last Mars on its final flight / by Michael O'Leary

68 COLORS OF WAR
We again dip into our files to bring forth a variety of WWII aircraft in full color / by Michael O'Leary

72 PROPLINER HAVEN
South Africa's Rand Airport harbors one of the world's largest collections of vintage Propliners / by Ralph M. Pettersen

COVER: The Martin Mars Philippine Mars *during its final flight. Photography by Michael O'Leary*

THESE PAGES: Pilot Stew Dawson touches down at Chino Airport during July 2015 in the Lewis Air Legends Douglas A-20G USAAF 43-21709/N747HS Havoc. Photography by Michael O'Leary

Society of AIR RACING HISTORIANS GOLDEN PYLONS

Departments

6 **MESSAGE FROM THE PUBLISHER**

8 **WARBIRD & CLASSIC REPORT**
All the latest vintage aircraft news including the Douglas A-20 accident and a look at the return of the National Aviation Heritage Invitational / by Doug Fisher

18 **LOG ENTRIES**
At what point does a current Warbird no longer represent the original aircraft? / by Mark Bingham

84 **FRIDAY NIGHT OLDIES**
Rare Kodachromes of surplus ex-military aircraft / by Doug Fisher

94 **AIRLINES**
News and views from the readers of Air Classics

321709
L
N747HS

Editorial & Production Staff
Michael O'Leary • Publisher/Editor • *moleary2challenge@gmail.com*
Matt Rippetoe • Art Director
Susan Duprey • Production Manager • *ed@challengeweb,.com*
Nicholas A. Veronico • Managing Editor • *airclassicsasknick@att.net*
Roger Cain • Social Media Manager/Antique Aircraft Editor • *jollyrogercain@comcast.net*
Steve Cox • Artist in Residence • *stevecox21@hotmail.com*
James Farmer • Aviation Films Editor • *jfarmer22244@hotmail.com*
Doug Fisher • Warbird and Classic Report Editor • *dougsfno@cogeco.ca*
Jim Larsen • Air Racing Editor • *filmandflight@yahoo.com*
Bruce Lockwood • Technical Editor • *lockwoodaviation@yahoo.com*
Philip Makanna • WWI Aviation Editor • *phil@ghosts.com*
Ralph M. Pettersen • Propliner Editor • *rmpettersen@gmail.com*
Joe Scheil • Jet Warbirds Editor • *pbydreams@aol.com*
Tim Weinschenker • Golden Pylons Editor • *pylonguy2003@yahoo.com*
Steve Whitby • Air Tanker Editor • *srwhtby@verizon.net*
Howard Carter, **Keith Charlot**, **Jim Dunn**, **William T. Larkins**, **Gerald Liang**, **Norm Taylor**, **James Thompson**, **Marshall Wainwright**, **Mark Watt** • Contributors

Advertising Staff
Nicholas A. Veronico • Advertising and Marketing Director • *challengeadsalesnickv@gmail.com;* Tel: 650-483-6902

Editorial & Advertising Offices
AIR CLASSICS, 9800-D Topanga Canyon Blvd., Chatsworth, CA 91311
Tel: 818.700.6868 (8:00-4:00 PST Mon.-Thurs.); FAX: 818.700.6282
E-mail: *mail@challengeweb.com*
Web: *www.challengemagazines.com*

Subscription Offices
AIR CLASSICS, PO Box 16149, North Hollywood, CA 91615
Tel: 818.286.3124
Toll-Free: 800.562.9182 (Continental US Only) (9-5 PST Mon.- Fri.)

www.challengeweb.com

PROUDLY PRINTED IN USA

AIR CLASSICS (ISSN 0002-2241) is published monthly by Challenge Publications, Inc., 9800-D Topanga Canyon Blvd., Chatsworth, CA 91311.

Copyright ©2025 by Challenge Publications, Inc. All rights reserved. Nothing in whole or in part may be reproduced without written permission of the publisher.

Send editorial and advertising material to 9800-D Topanga Canyon Blvd., Chatsworth, CA 91311. Publisher assumes no responsibility for unsolicited material. All photos, artwork, and manuscripts must be accompanied by stamped self-addressed return envelope.

POSTMASTER — Send address changes to AIR CLASSICS, PO Box 16149, North Hollywood, CA 91615. Please give six to eight weeks advance notice of address change. Send old and new address plus recent mailing label, if available. Subscription rate: US and possessions, one year — $89.95; Canada, Mexico, and other foreign countries — $103.95 (US funds). Periodicals postage paid at Chatsworth, CA, and additional mailing offices.

FOLLOW US ON FACEBOOK — *facebook.com/airclassicsmagazine* • VISIT US ONLINE — *airclassicsmagazine.com*

MESSAGE FROM THE PUBLISHER

Our society has never been particularly good at reusing things. This especially applies to our military where the generals and admirals (along with politicians that have stakes in the states that manufacture aircraft) always want to have what is "new, bright, and shiny." On a recent flight over Davis-Monthan AFB, I got a chance to look down on the rows and rows of military aircraft that range in size from the behemoth Lockheed C-5 Galaxy to the Beech T-34C Turbo-Mentor. Most everything on that bleak stretch of desert had given us taxpayers good service. My question is, can they still keep giving us good service?

The American military, no matter what era since the advent of flight, has always been short on aerial transport. It is just not a very glamorous field and, because of that, the aforementioned generals and admirals clamor for more new fighters and bombers — and not cargo haulers. Yet these transports form an essential part of today's mobile military. The Douglas C-17 (and I just can't bring myself to say Boeing) should still be in production. It is an incredible aircraft that does its assigned mission but also does it with fighter-like handling.

What of those gray and hulking Galaxies parked in the desert? Surely there must still be use for them? Same with the Navy's Grumman C-2 Greyhound COD aircraft. We currently do not have an effective COD aircraft since the tilt-rotor Osprey has met with so many problems. The Osprey was going to replace the Greyhound but that did not happen because of the mechanical deficiencies attributed to the V-22. The type is now restricted to flights not more than 30 minutes from land and this obviously places a strain on the carriers. What if a carrier was hundreds of miles out to sea and needed some vital parts to keep Super Hornets flightworthy? If the carrier or its supply ships did not stock what was needed, then they are sort of out of luck. Accordingly, it appears the Navy has had to return a few Greyhounds to service.

During late December 2024, the USS *Carl Vinson* Carrier Strike Group was operating in the Philippine Sea with three CMV-22B Ospreys and no Greyhounds (following a 2023 grounding of the entire Osprey fleet). This brought to mind the time Technical Editor Bruce Lockwood and I flew out to the *Carl Vinson* in a Greyhound. Bruce was going to fly a Super Hornet on and off the carrier for a story we were putting together. Of course, we went out on a Greyhound that was loaded with personnel and packages and returned the same way. The Greyhounds were running with airline efficiency, moving people and goods back and forth on a regular basis. So much of the overall combat plan for the US Marine Corps has been based upon the Osprey but the type has a poor operational/safety record. It is an incredibly complex aircraft with, in my opinion, way too many moving parts. There have been some really nasty V-22 accidents over the years. After an airshow, I was sitting at a hotel bar with an Osprey crew. One young airman was tasked as the "survivability specialist" on the crew but as he rather glumly said, "nobody ever survives an Osprey crash." Hopefully, the current administration can sort out this problem during a time when we need increased carrier strength in the South China Sea and in the Middle East. As for the Super Hornet adventure, that is best left for a future column.

We are blessed with a strong workforce of highly-skilled individuals that could be put to work on rebuilding and modernizing these retired aircraft, thus giving a massive infusion to our aviation assets. During the Korean War, the American military had been drastically cut back from its world-dominating WWII force. However, there was the foresight to store hundreds of Superfortresses, Mustangs, and Corsairs and these aircraft became part of a rapid overhaul program that soon had them combating, and destroying, advancing communist forces. Could we do this today? Probably not since the planes are more complex. Right now would be a good time to start such a program.

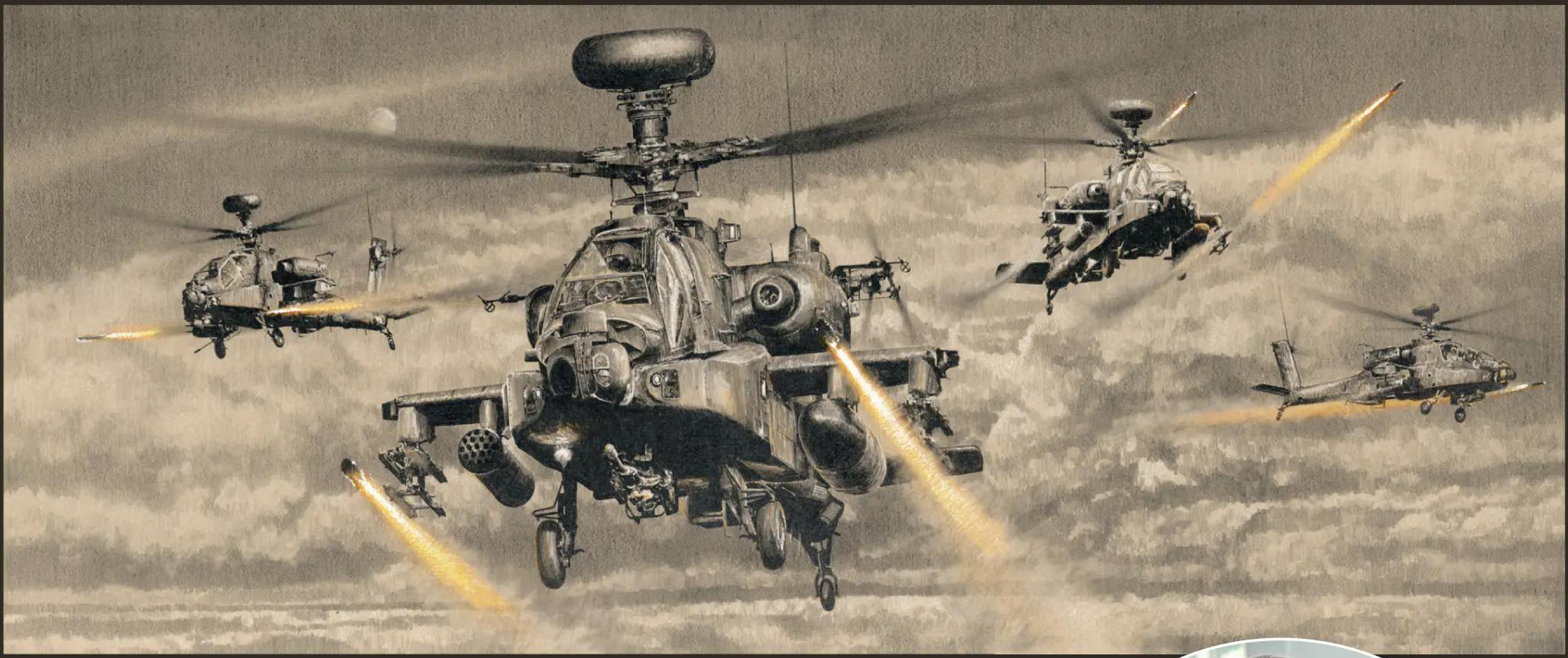
I recently spoke with the pilots of one Fairchild Republic A-10 Thunderbolt II unit and they were flying one aircraft a week to the "boneyard." The USAF high command has never liked the A-10. It is an odd plane, but it is also an extremely effective aircraft that could go a long way in stopping any form of Soviet armored invasion of Europe. A long time ago, I found myself aboard a KC-135 lifting off from March AFB in support of the first USAF A-10 unit to deploy to West (as it was then known) Germany. For the pilots in the A-10s, it was a long flight since the aircraft did not have aerial refueling capability but everyone made it to the German base. After a bit of rest, the A-10s went into action for the first time against targets set up by the Germans. I had deployed to a forested area with some German armored anti-aircraft units. Hidden amongst the trees, the light gray A-10s roared around overhead, performing very tight turms that dragged vapor trails from the wingtips as the pilots sought out German armored units. I watched one young crew with their radar-guided guns tracking the A-10s and they admitted the aircraft could cause them some grief. Some of older commanders had been around when P-47 Thunderbolts destroyed German ground forces and they spoke eloquently of the need for such aircraft — and a need for destroying them. It was difficult to tell if the younger troops were paying any attention.

Since that time, the A-10s have more than proven their worth in the Middle East. Currently, the aircraft are being lined up wingtip-to-wingtip at Davis-Monthan. The replacement is the problematical F-35 series — another attempt to create a "do everything" combat platform. Some time ago, a proposal was made to convert retiring A-10s to fire-bombers and this was done during a period when the USAF was getting its way towards grounding the type. However, A-10s were rebuilt and put back into service. There is now another proposal being considered on the fire-bombing conversion. It would seem to make more sense to rebuild these planes to let them continue in their designed mission along with perhaps giving them a strong anti-shipping capability as they would be excellent for attacking smaller inshore vessels and landing craft.

Then we come to the Martin Mars. This issue has the most extensive article ever printed on these grand flying boats. When the US Navy had finished with the aircraft, they were done. There was no thought of saving one for posterity. They were simply staked out at San Francisco Airport and left. The government decided to offer them for sale to recoup some of the taxpayers' initial investment. I do not know how many people went to examine the planes and go through their records but it probably was just a few. There were no takers. It took the vision of a single Canadian to see that reusing and repurposing the Mars offered an excellent opportunity. This was not an easy task and it came at a cost. However, by reusing and repurposing, North America got an incredible tool that would serve in Canada and United States for decades.

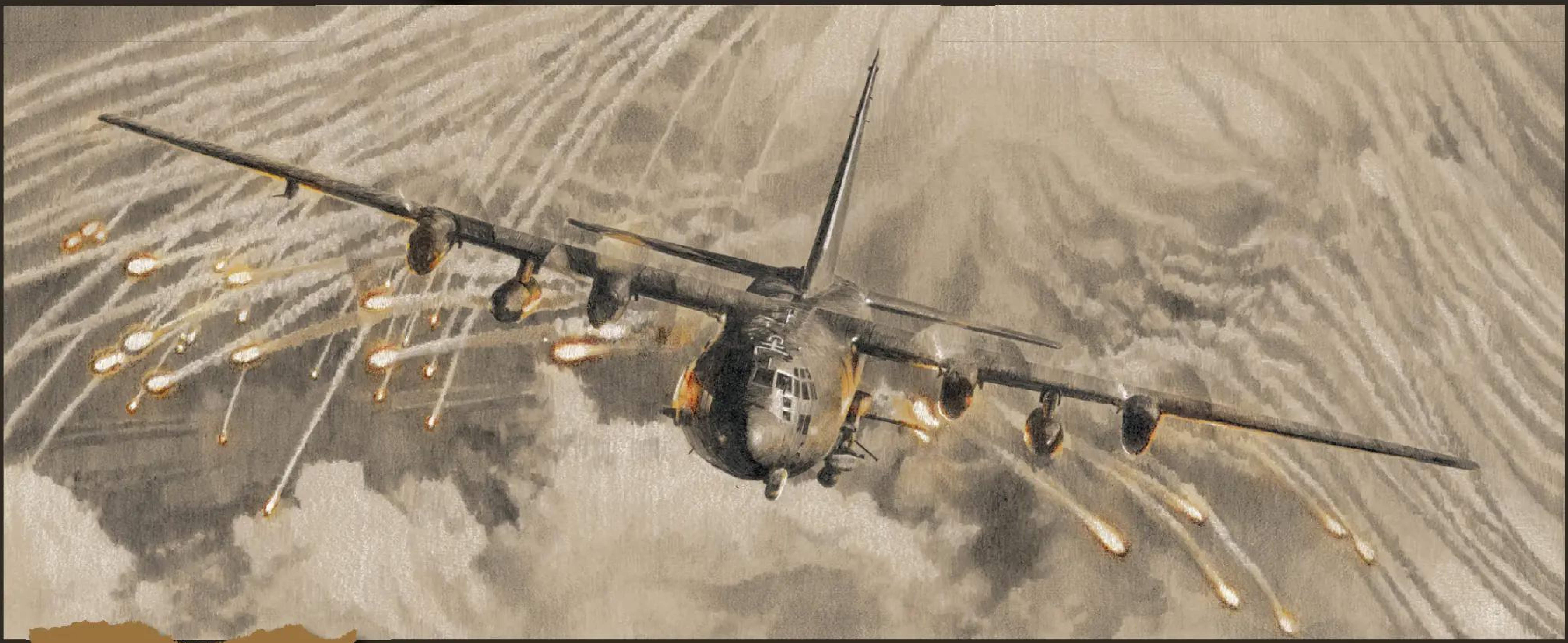
I think we need this type of creative thinking to repurpose some of those aircraft now parked in the Arizona desert. Few things are more complex than a modern aircraft and millions of man-hours have gone into designing, building, and utilizing those desert warriors. Let's have American industry put on their thinking caps to create new uses for those silent wings of the desert.

MICHAEL O'LEARY/PUBLISHER
CHALLENGE PUBLICATIONS
moleary2challenge@gmail.com



THE MONSTER IS HERE
AH-64D Apache

Two new
Limited Edition prints
from the studio of Richard Taylor



Both titles start
at just $75

ANGEL OF DEATH
AC-130 Gunship

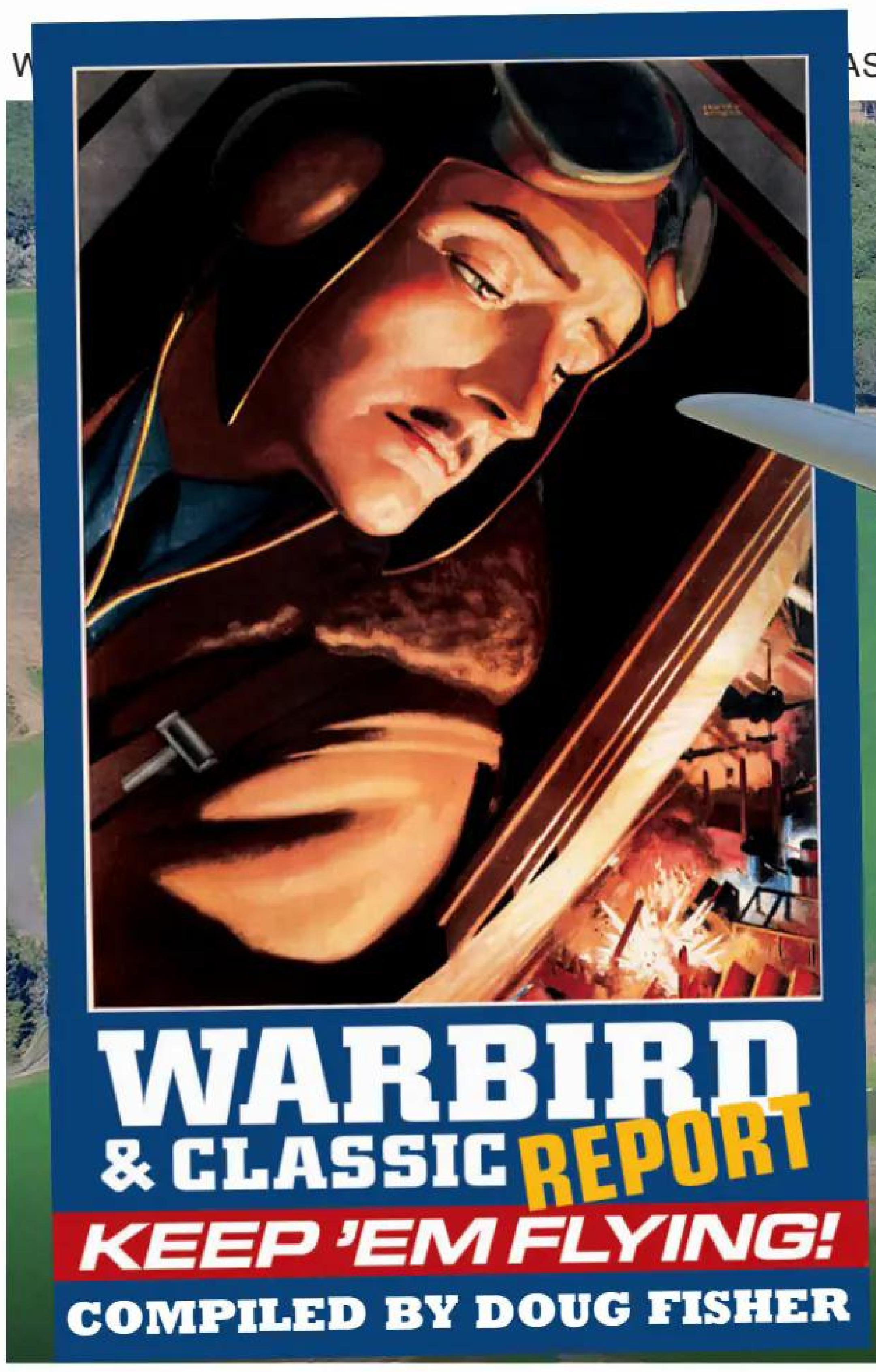
ORDERS ARE NOW BEING TAKEN – CALL, EMAIL OR VISIT OUR WEBSITE

ACES HIGH
AVIATION GALLERY

www.aces-high.com

@AcesHighGallery

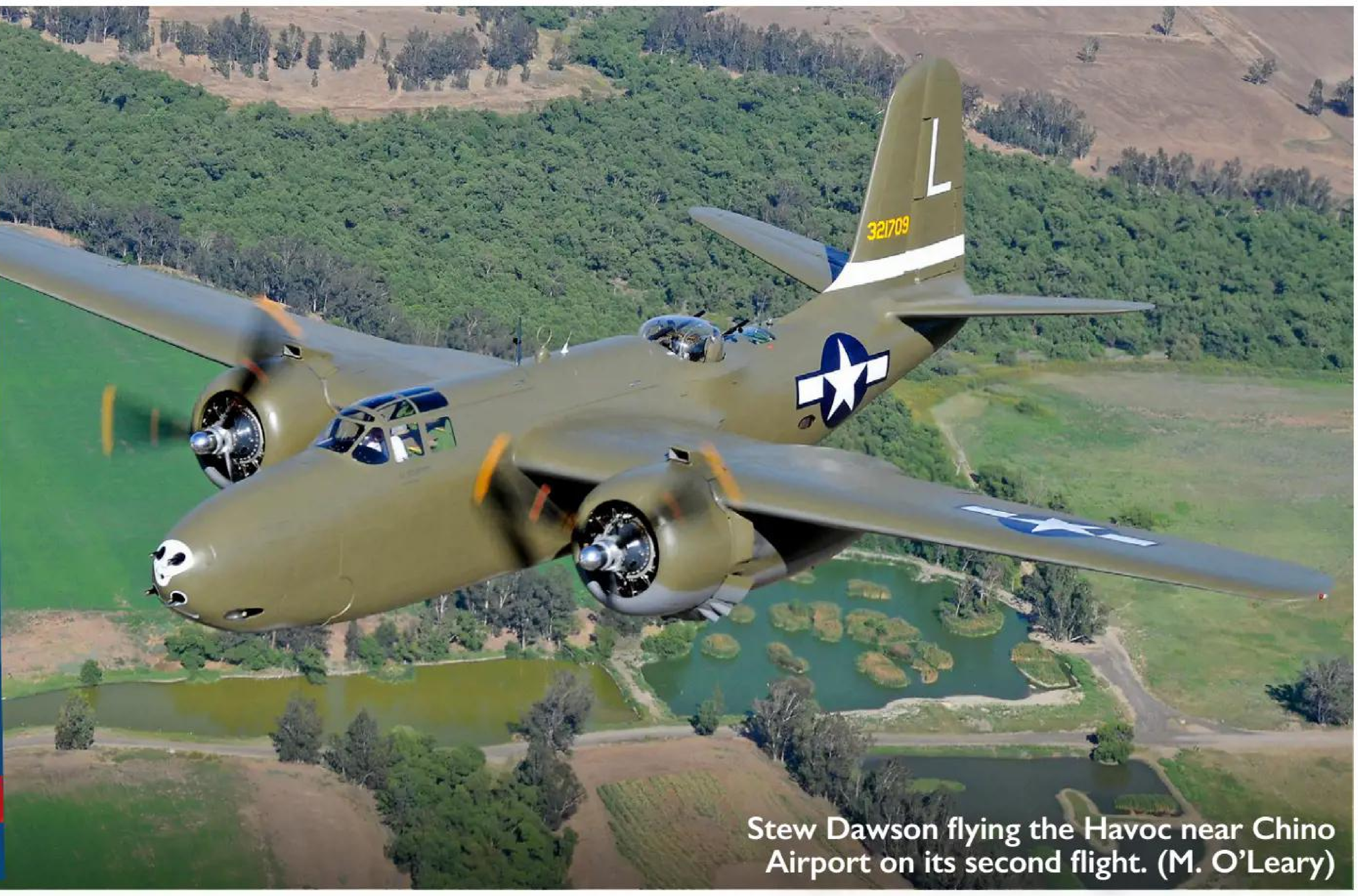
info@aces-high.com
+44 (0)1296 625681



WARBIRD & CLASSIC REPORT

KEEP 'EM FLYING!

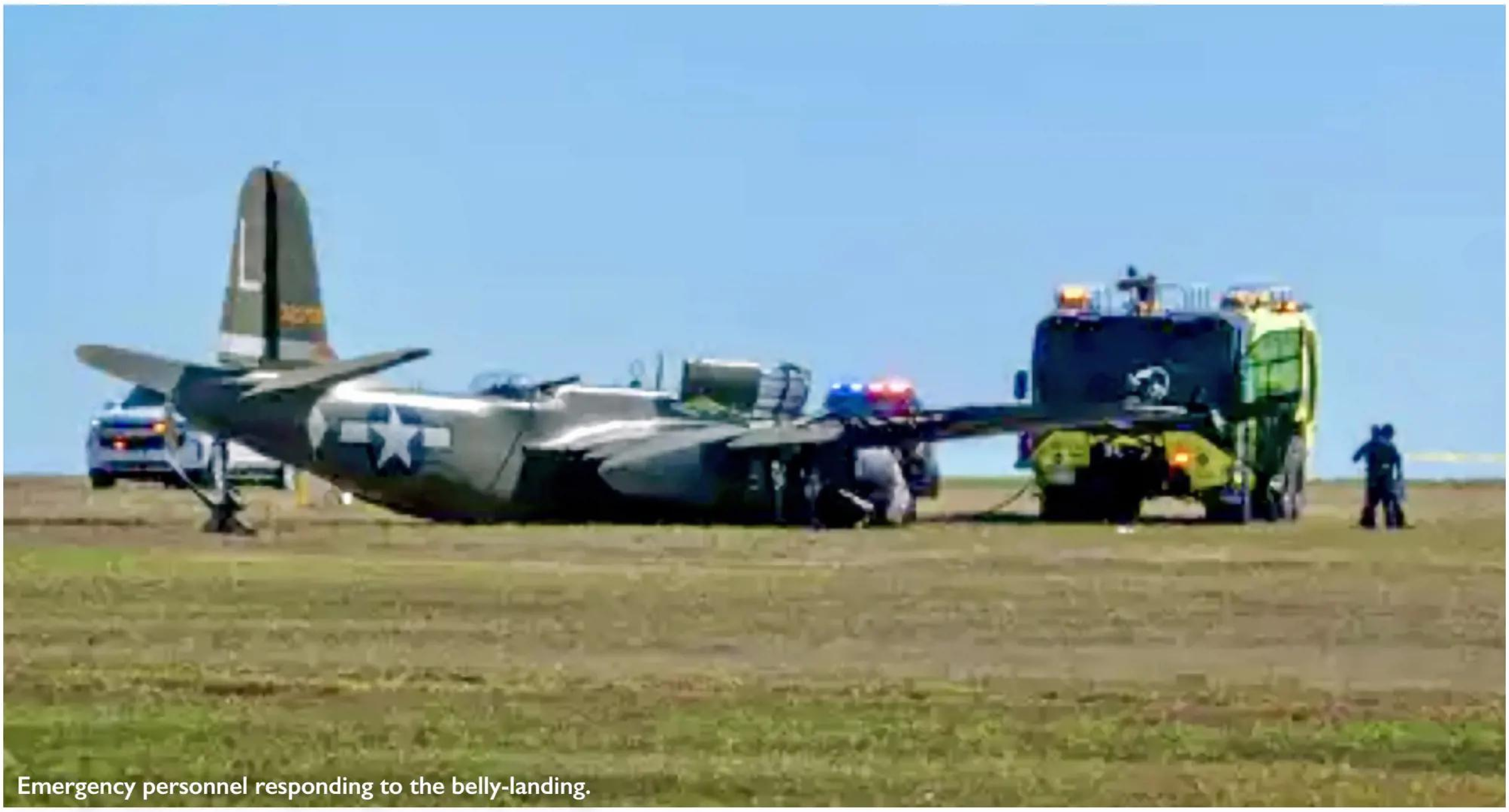
COMPILED BY DOUG FISHER



Stew Dawson flying the Havoc near Chino Airport on its second flight. (M. O'Leary)

HAVOC CRASH-LANDING

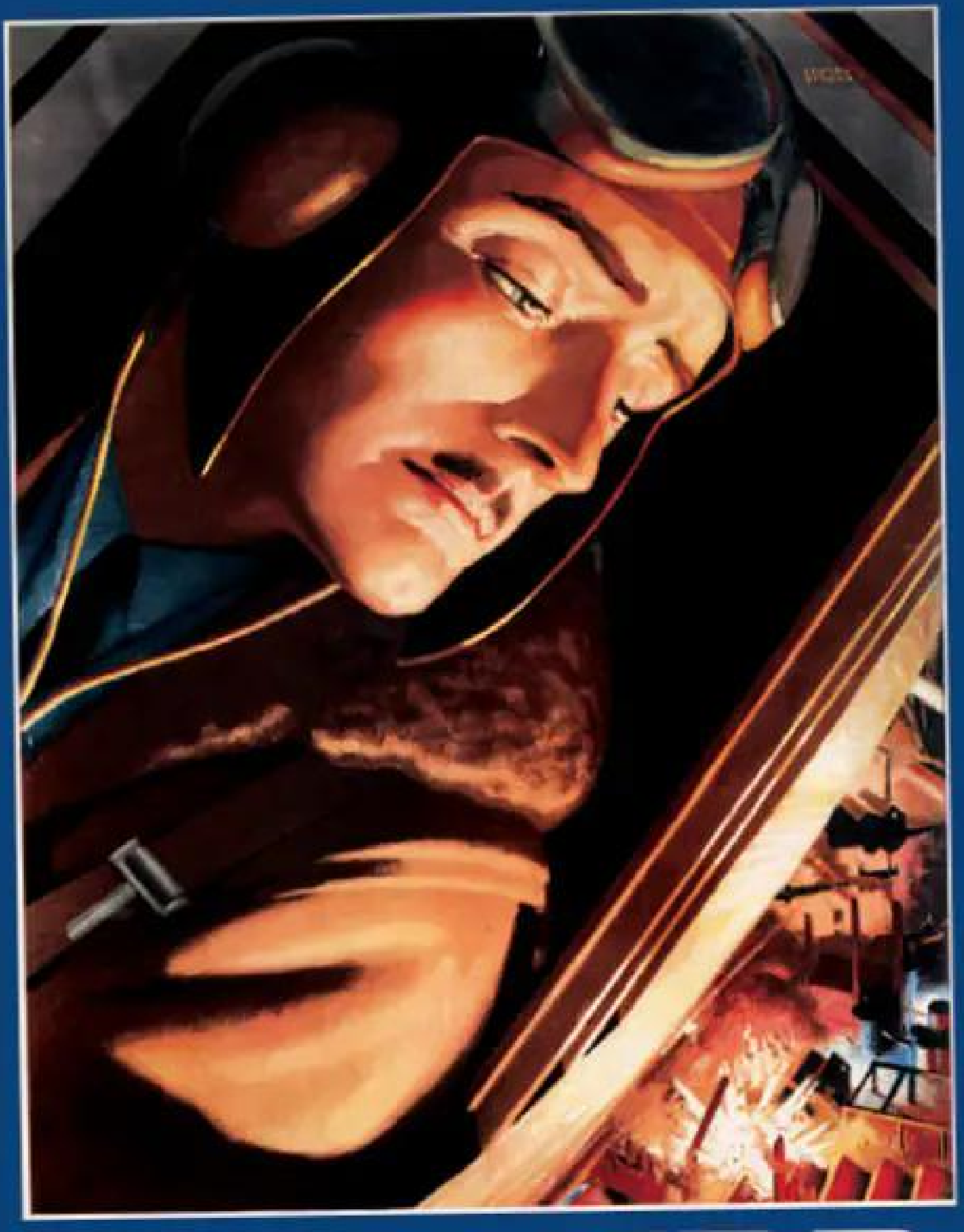
On 16 February, we received news that the Douglas A-20G Havoc operated by the Air Legends Foundation had crash-landed while participating at an airshow in Laredo, Texas. The twin-engine attack bomber was making a fly-by for spectators when some form of problem took place. The Havoc was being piloted by Stew Dawson and he managed to save the craft and get it on the ground in a very hard belly-landing. Watching amateur video of the event, it was frightening to see just how quickly the plane came down. After impact, it appears that an oil fire started in the right R-2600 engine and this caused damage to the wing and forward fuselage. There was also extensive impact damage to the fuselage. "Having watched the restoration of this 100-point aircraft from Day One, the accident came as a shock," said Editor Michael O'Leary. "That said, there was no better person to have in the cockpit than Stewart Dawson. Stew has thousands of hours in multi-engine aircraft and he handled the emergency in a cool and professional manner. With only seconds to react, he did everything correctly." On 17 February, Aero Trader's Carl Scholl departed Chino Airport in one of Rod's jets so he could aid in recovery of the plane and begin examining the airframe. It was important to get Carl to the accident scene as quickly as possible so the plane could be removed without further damage. Carl stated that he assisted Jim "JD" Dale and the Lewis crew in raising the Havoc, getting it on a flatbed trailer, and then moving the plane to the ramp near a hangar. "Raising the A-20G was not particularly easy," said Carl. "Since Aero Trader originally did the restoration, we knew how to get the straps attached to the airframe and crane for the raising process. It was obvious that Rod and his crew were really worried about Stew's condition along with getting the Havoc removed from the accident scene." Unfortunately, Stew received some serious injuries but just before this issue went to the printer, we received the good news that he is recovering. As *Air Classics* readers know, this was the last flying Havoc of over 7000 built. Plans for a possible re-restoration have not yet been formulated. We hope to have more news in the June issue.



Emergency personnel responding to the belly-landing.

NEXT PAGE: Stew Dawson breaks away from the camera plane to illustrate the Havoc's slim fuselage profile and long bomb-bay. (M. O'Leary)

32170



WARBIRD & CLASSIC REPORT

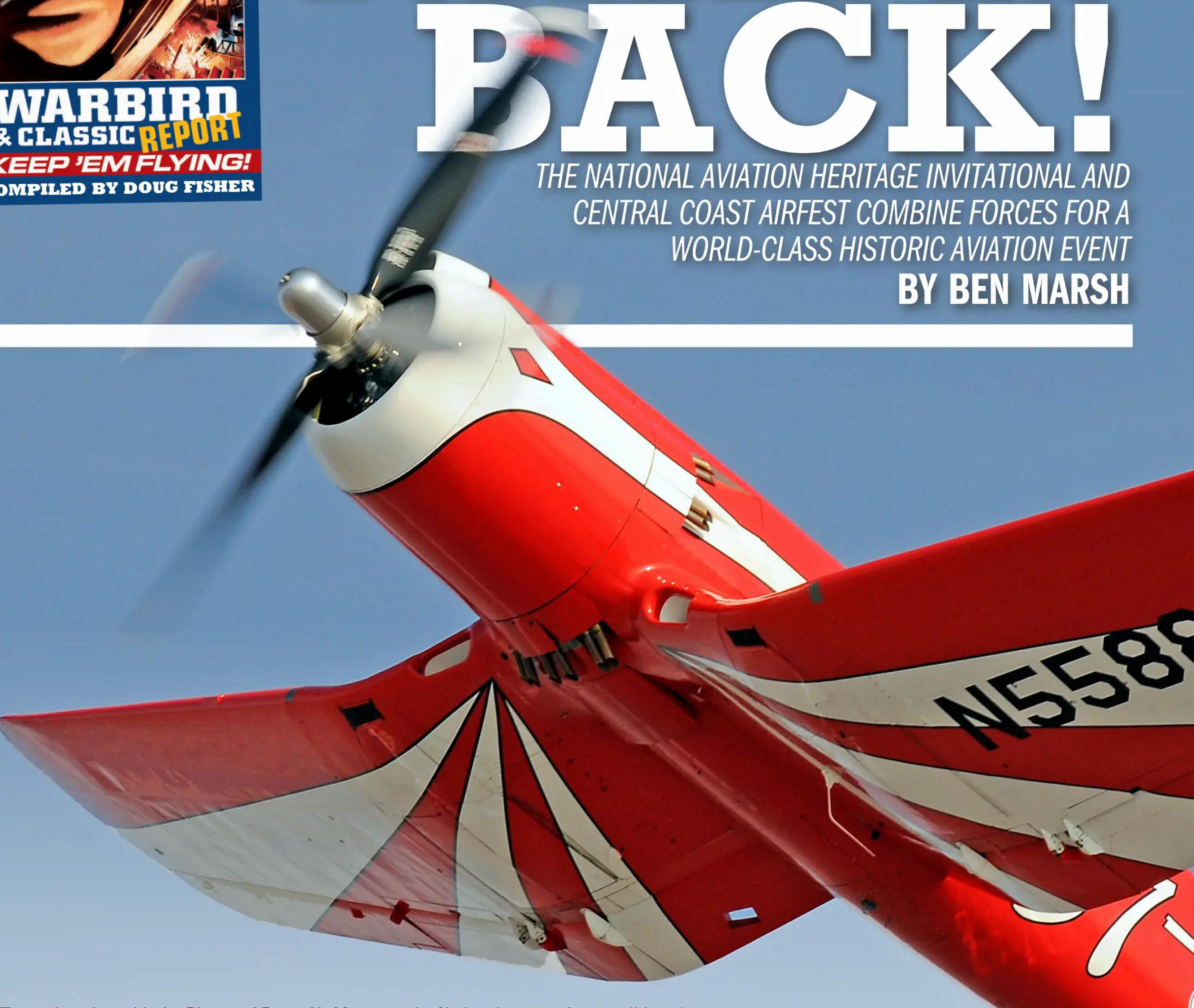
KEEP 'EM FLYING!

COMPILED BY DOUG FISHER

NAHI IS BACK!

THE NATIONAL AVIATION HERITAGE INVITATIONAL AND CENTRAL COAST AIRFEST COMBINE FORCES FOR A WORLD-CLASS HISTORIC AVIATION EVENT

BY BEN MARSH



In conjunction with the Planes of Fame Air Museum, the National Aviation Heritage Invitational (NAHI) will hold an antique, classic and military aircraft competition and display at the Central Coast AirFest in Santa Maria, California on 18/19 October 2025. This will be the first NAHI competition since 2022, still one of the top juried aviation events in the country.

Steve Hinton, President of Planes of Fame Air Museum, stated "We are really pleased to work with NAHI. The competition and display will bring some of the finest restored vintage aircraft in the country to the Central Coast AirFest, adding a new and exciting element to our air show." It is an exciting time for the Planes of Fame Air Museum, as it breaks ground to begin construction on its new Santa Maria facility. (*Air Classics* will share more details on this important Planes of Fame development in future editions.)

NAHI retains its long affiliation with the Smithsonian National Air and Space Museum. NAHI Grand Champions are commemorated on the prestigious Neil A. Armstrong Aviation Heritage Trophy, which is a perpetual trophy on display at the Smithsonian's Steven F. Udvar-Hazy Center in Chantilly, Virginia. Category winners are awarded beautifully crafted keeper trophies, including: the Orville & Wilber Wright Antique Aircraft Trophy, the Paul E. Garber Classic Aircraft Trophy and the Henry "Hap" Arnold Military Aircraft Trophy. Owners and restorers are encouraged to visit NAHI's website for information and to enter their airplane for the competition and display at the Central Coast AirFest, *www.heritagetrophy.com*. The invitational is an exclusive, space limited event, representing some of the

In 1999, the late Bob Odegaard took the Grand Champion Trophy with the magnificent Goodyear F2G-1D Super Corsair Race 57. The restored Cleveland racer was being flown by Dennis Sanders in this photograph. The Super Corsair along with the highly-modified Hawker Sea Fury *Dreadnought* are the last aircraft in the world being flown with P&W R-4360 engines. (M. O'Leary)

NAHI honors all categories of historic aircraft — from the sleekest Warbirds to Javier Arengo's incredible 1911 Bleriot. (Philip Makanna/GHOSTS)

TED STATES AIR FORCE
NAHI provides spectators and enthusiasts with a wide variety of classic aircraft to inspect up close. (R. Kaplan)

finest examples of restored vintage aircraft in the world.

NAHI's Executive Director Ken Perich commented, "NAHI is reinvigorating itself with the Planes of Fame to encourage and promote great airplane restorations. The NAHI competition and display with Planes of Fame is a national event, strategically located in the West as one of the Triple Crown aviation happenings, with Oshkosh and Sun 'n Fun." For persons and organizations interested in volunteering or sponsoring the NAHI competition and display, please contact Jane Hinton at *centralcoastairfest.com. Air Classics* is proud to support this important Planes of Fame/National Aviation Heritage Invitational event.

Previous NAHI Grand Champions include:
1999: Bob Odegaard's F2G-1D Super Corsair
2002: "Captain Eddie" Kurdziel's Fairey Firefly
2003: J. Roy Shoffner's P-38J *Glacier Girl*
2006: Frank Schilling's Curtiss JN-4H Jenny
2011: Javier Arango's 1911 Bleriot XI
2019: Chris Galloway's Waco QCF

Save the date: National Aviation Heritage Invitational competition and display at Planes of Fame's Central Coast Air Fest, October 18th & 19th, 2025, Santa Maria Airport. Watch for more details in upcoming issues of *Air Classics*. **AC**

Moonbeam had been a fixture at American airshows for decades.

Fuselage ready to go into the container for the sea voyage to Britain.

The wing was shipped in one piece.

MUSTANG ON THE MOVE... AGAIN

North American P-51D *Moonbeam McSwine* USAAF 44-12473/N51VL is back in Europe. This aircraft was, of course, the well-known mount of Mustang enthusiast and all-around great guy Vlado Lenoch. Ever since he was a teenager, Vlado had a passion for the P-51 and he was eventually able to acquire an example. This particular aircraft had been illegally exported from the USA as N5073K to Salvador for the Soccer War where it took up the identity of FAS 406. In 1975, it was returned to the States as N32FF and wound up at King City, California, where it was restored by Gordon Plaskett. It should be noted that there is a great deal of confusion regarding the Mustangs that went to Salvador and the P-51s that returned. That means the serial should be viewed with a bit of skepticism. Be that as it may, Plaskett did his usual fine job of bringing the plane back to flying condition. Gordon had acquired lots of Mustangs, engines, components, and other P-51 bits and pieces from Salvador, Haiti, and Cavalier. In Vlado's ownership, the Mustang, as N2151D, was constantly improved upon. Vlado visited airshows, raced at Reno, and participated in the USAF Heritage flights. After Vlado's death, the aircraft was sold during 2013 to a new owner in France and it became F-AZXS. In 2018, the Warbird Heritage Foundation decided they wanted to honor Vlado and the P-51 was purchased and returned to the States as N51VL. From that point, the Mustang was regularly displayed at airshows until the decision was made to place it for sale with Mark Clark's Courtesy Aircraft. The new owner is Biggin Hill's Fly A Spitfire Ltd. so presumably *Moonbeam* will be utilized for giving rides.

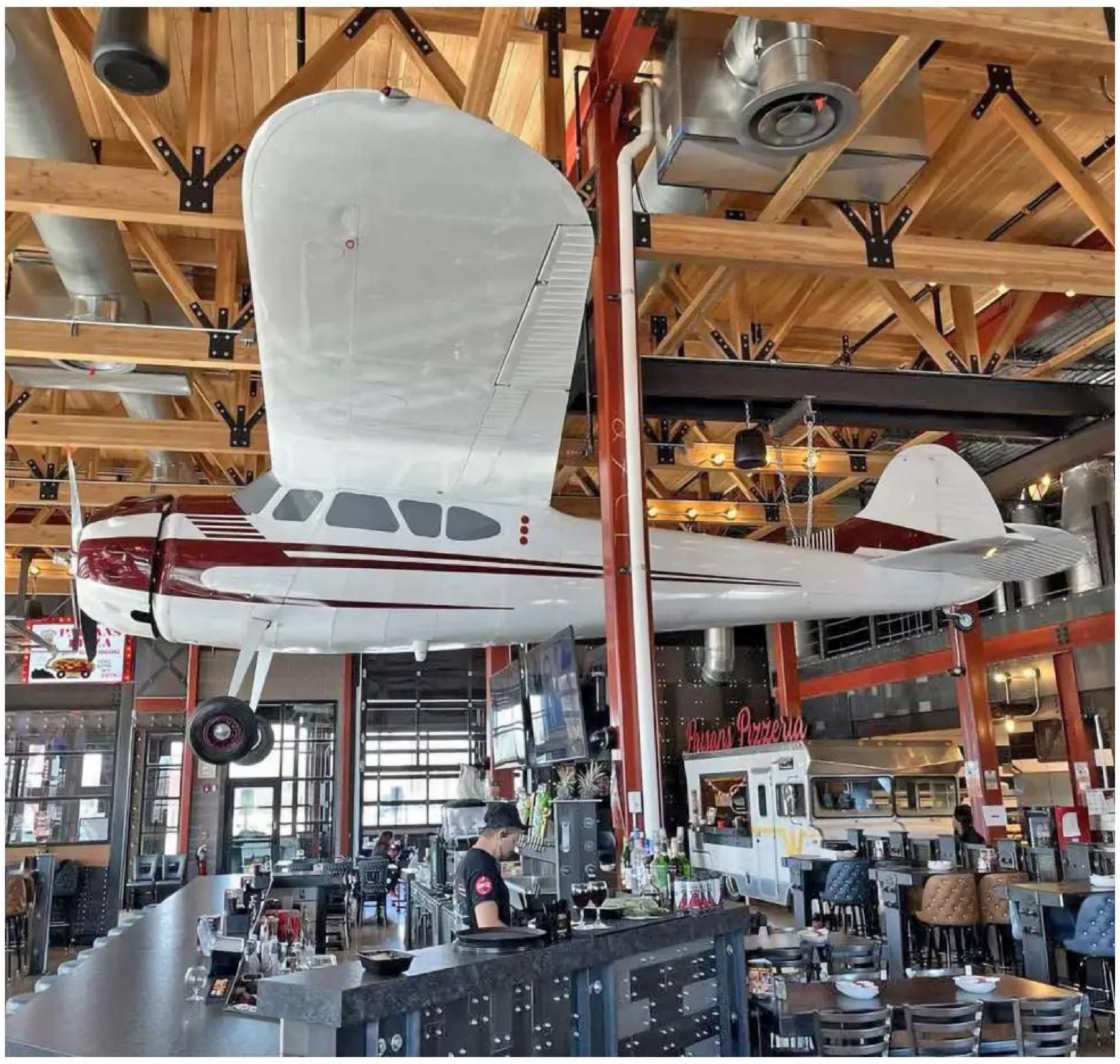
GossHawk
UNLIMITED

Vintage/Warbird Aircraft
Restoration & Maintenance
T-28, P-51, Fw 190, T-6, B-17, L-29, PB4Y-2, Me 262
Stinson V-77 and a wide variety of other aircraft

52 Years Aviation Mechanic Experience
20 Years with Champlin Fighter Museum

3184 N. Rockwell Ave.
Casa Grande, AZ 85122
(520) 423-2622

Dave Goss, President
www.gosshawkunlimited.com
Info@gosshawkunlimited.com


The Cessna 190/195 in Paisans Pizzeria.

CESSNA IN THE RAFTERS

When Paisans Pizzeria in Oak Lawn, Illinois, decided they wanted an unusual attraction, they went for something decidedly un-Italian. The wall hanging is a Cessna 190/195 that is unfortunately unidentified but it certainly makes a statement. Not exactly a roadside attraction as in Adam Stanton's article in this issue, but an indoor attraction that finds a unique use for a vintage airframe.

FLY IN THE
P-51 MUSTANG

FLY IN MUSTANGS MAN 'O WAR OR BUNNY!

WWII'S ULTIMATE FIGHTER

HISTORIC AIRCRAFT RIDES BEGIN AT JUST $195
MUSTANG * SHOOTING STAR
KAYDET * TROJAN * SKYTRAIN
THESE RIDES MAKE FOR A PERFECT GIFT

Our immaculately maintained fleet of classic aircraft provide thrilling flight experiences for every budget.

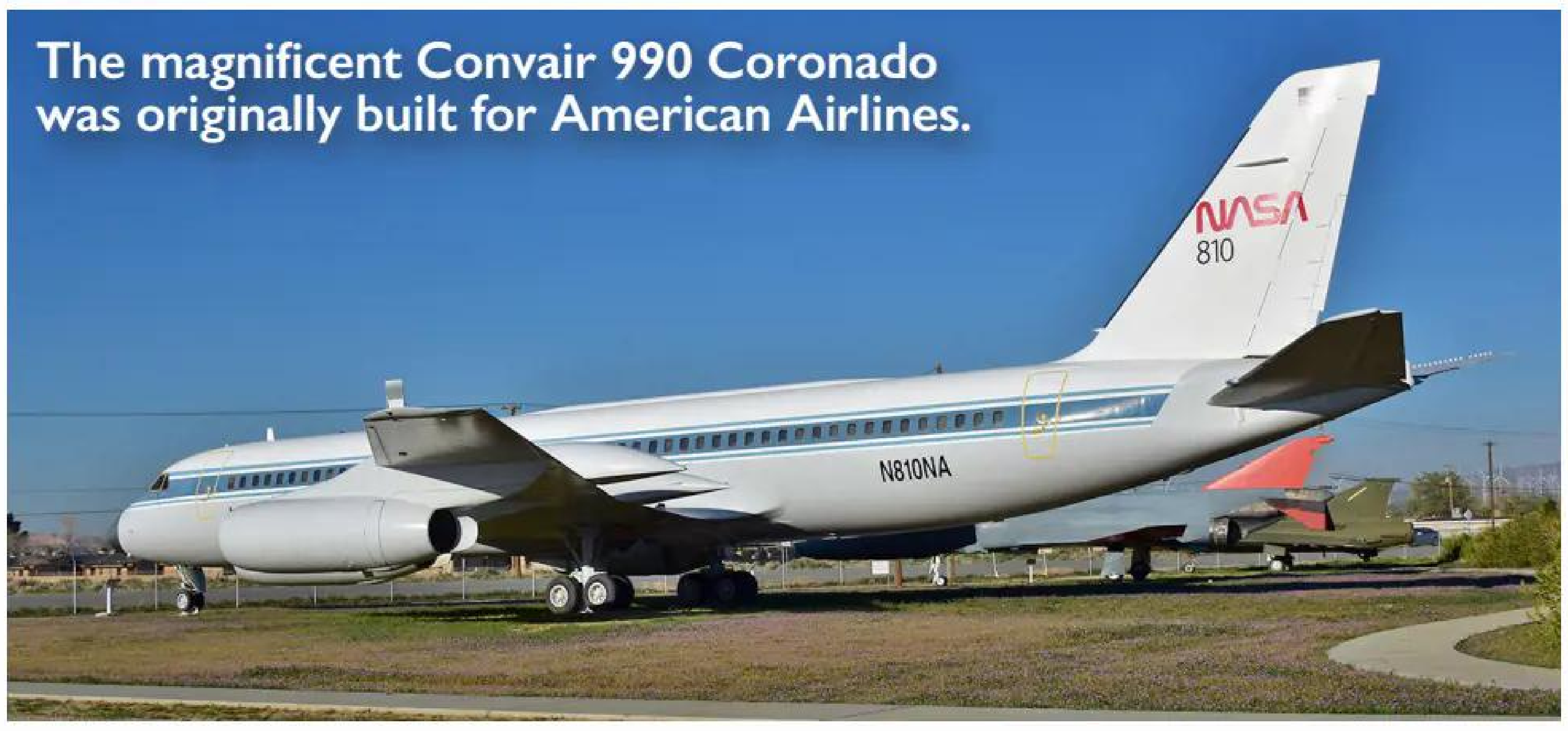
Located in the heart of America's resort paradise, these rides provide a once-in-a-lifetime gift for a friend or loved one. We have over 75 rare aircraft displayed in a modern 91,000 square foot climate-controlled setting that is just minutes away from world-class vacation features.

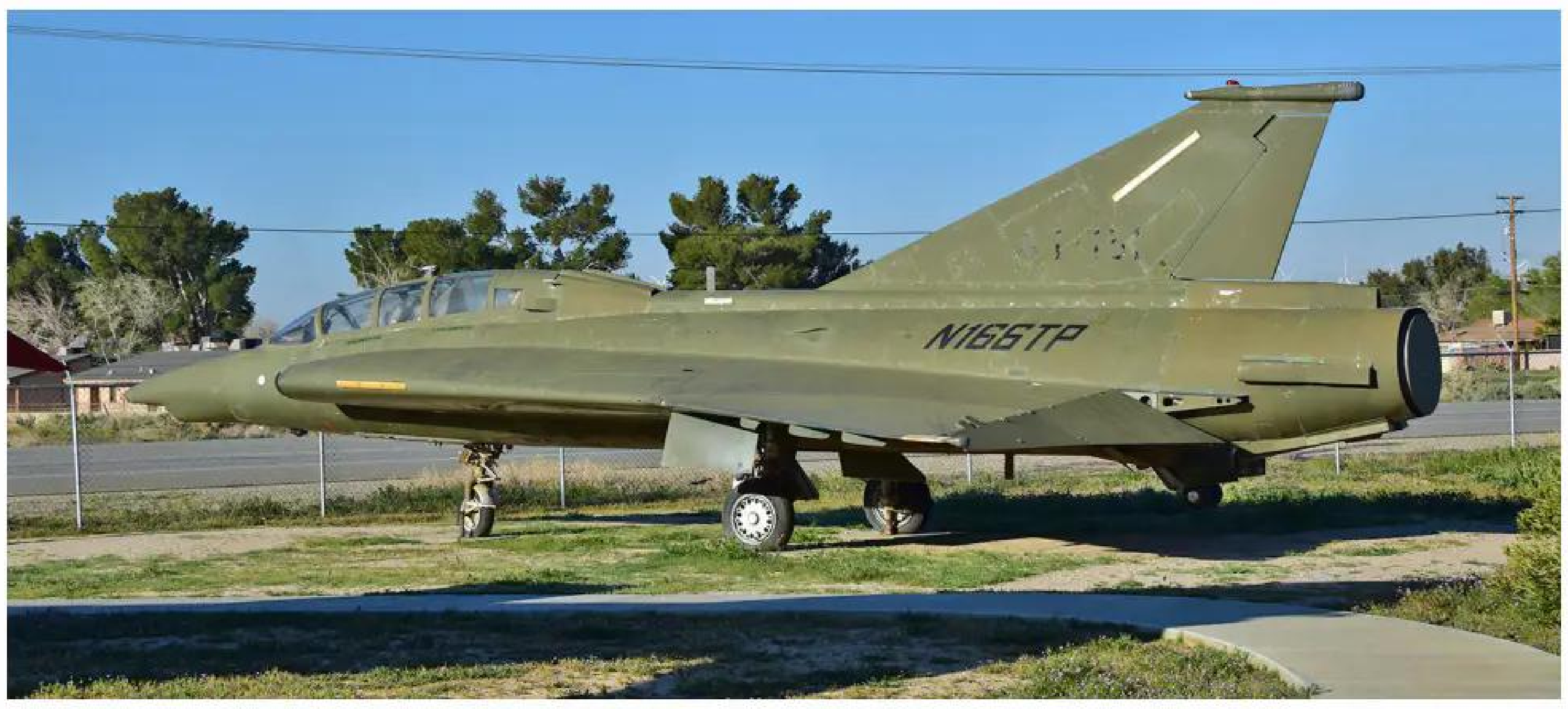
CALL 760-778-6262 FOR FULL DETAILS
Also go to *www.palmspringsairmuseum.org*

PALM SPRINGS AIR MUSEUM
745 North Gene Autry Trail, Palm Springs, California 92262
Open daily 10 to 5 • Closed Thanksgiving & Christmas

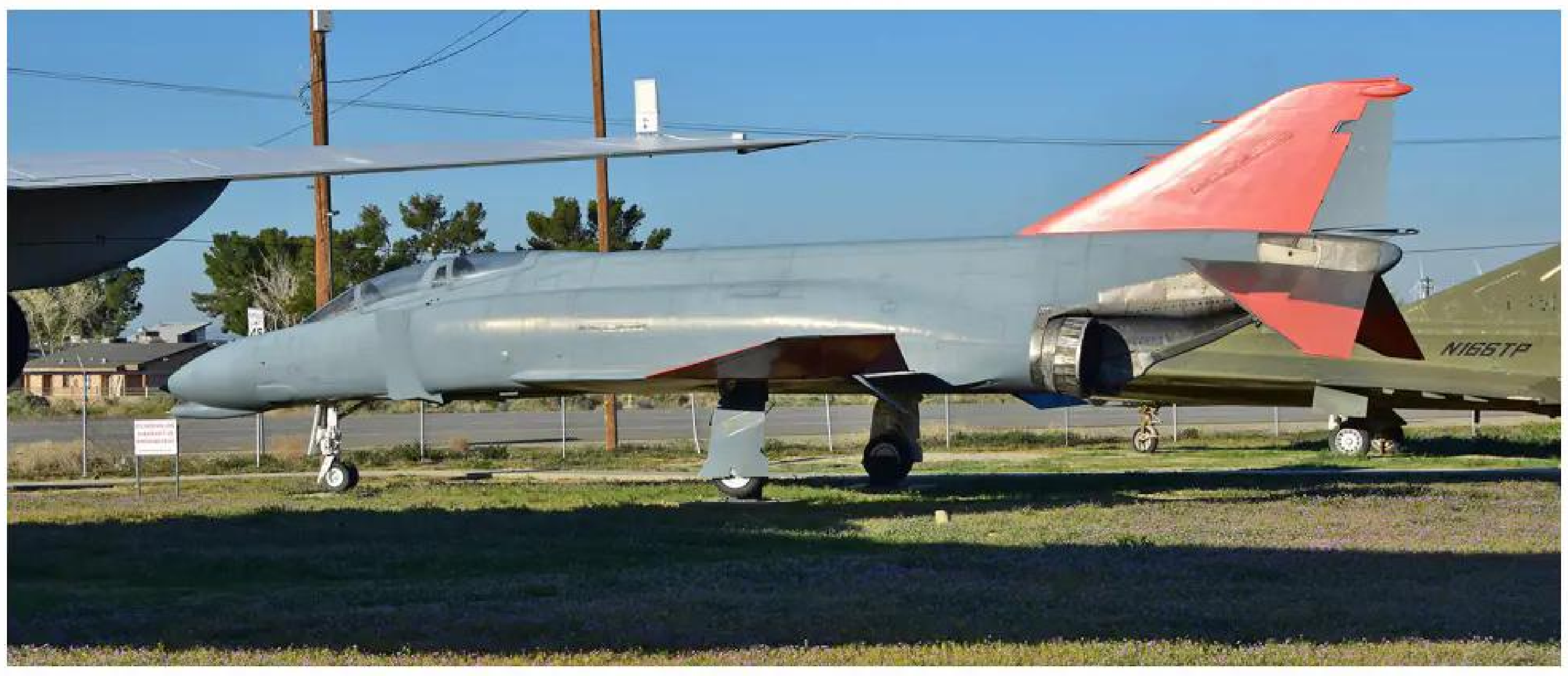
PALM SPRINGS
AIR MUSEUM
EST 1996

Photography by Jarrod Ulrich, Michael O'Leary, and PSAM


The magnificent Convair 990 Coronado was originally built for American Airlines.



The elegant SAAB J35 Draken had been a regular flyer with the National Test Pilots School until being ground for a lack of spares.



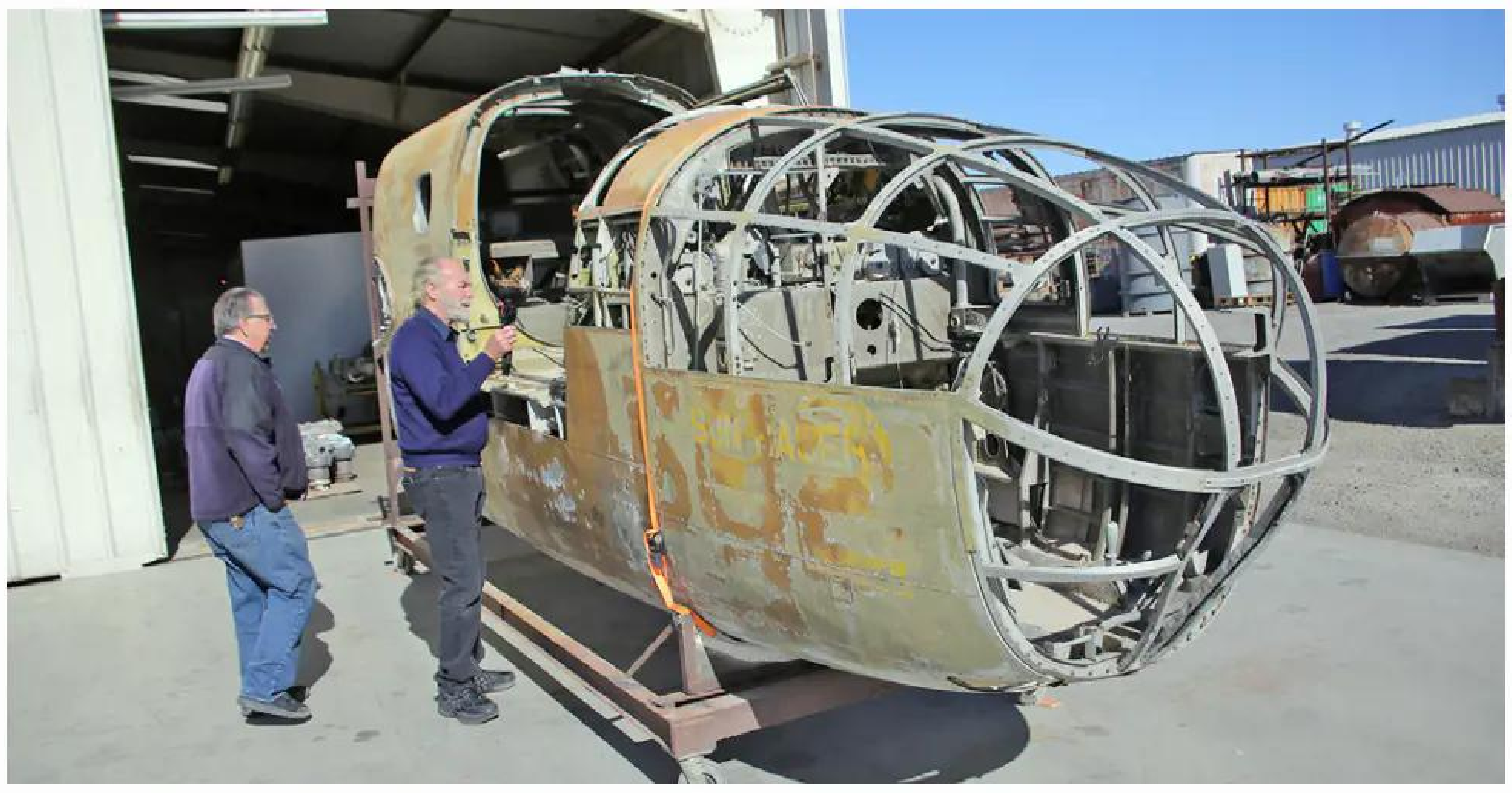
Unidentified Phantom II wearing a basic target drone scheme.

Warehouse Find!
R-1820-97-99 Cylinders
We just found 200 new R-1820-97 and -99 cylinders in our warehouse!
Enough to build 10 new engines for
B-17s • FM-2 Wildcats • Lodestars

Chester Roberts Supply Company
Overhauled Radial Aircraft Engines & Propellers
R-985 R-1340 R-1820 R-1830 R-2600 R-2800
2B20 2D30 12D40 22D30 22D40 33D50 23E50
Tel: 903-429-6805 • Fax: 903-429-6047
Crs5r@crsaviation.com
661 Pearce St. Collinsville, TX 76233
Buying engines/parts • propellers/parts
Top Prices Paid, Send List or Call

MOJAVE GATE GUARDIANS

Mojave Airport always has fascinating aircraft — either based at field, passing through, stored in the vast boneyard, or being scrapped. Over the decades, the airfield has been home to all sorts of unusual aviation activity and to commemorate that fact, a trio of “gate guardians” is parked at the entrance to the airfield. The largest aircraft is the now very rare Convair 990 Coronado and this example was last operated by NASA as N810NA. This aircraft started out life as N5617 for American Airlines on 11 May 1962. The next stop was with Modern Air Transport in 1968 before being acquired by NASA on 8 May 1975 as N713NA (it would also be registered as N710N and N810NA). After being withdrawn from use, the plane faced an uncertain future but through the actions of the late Dan Sabovich, the airport manager that literally saved the airfield and made it into today’s modern aerospace test facility, a deal was struck with NASA that saw the plane flown from Edwards AFB to Mojave. Due to Dan’s quick thinking, the plane was saved from the scrapper and it is now one of the very few preserved 880/990 aircraft. The Convair design had a lot of influence from Howard Hughes. Howard loved speed and the 880/990 gave him that speed — it was the fastest of the first-generation jet airliners. However, that speed came at a price. Fuel consumption was huge and the fuselage cross-section was narrow. When the planes were out of service with TWA, many were flown to Harlingen, Texas, where a lot of work was undertaken on converting them to cargo haulers. This all fell through and one of the reasons was that the narrow fuselage could not accommodate the standard cargo pallet. The planes were then flown to Mojave where they were stored for years but finally scrapped. The other gate guardians comprise a SAAB Draken and a McDonnell Douglas F-4 Phantom II. The Mach 2 Draken, registered N166TP, was one of several operated by the National Test Pilot School, which flew a diverse selection of aircraft from a Chipmunk, to a DC-3, to the Drakens. The Phantom, of which there was no visible identification, is probably left over from the extensive drone program undertaken by Flight Systems.



Kermit Weeks and Carl Scholl with the forward fuselage of the B-25B. (Steve Whitby)

KERMIT AND THE LAST RAIDER

Kermit Weeks has announced that he has acquired the North American B-25B Mitchell that had been in storage at Aero Trader’s desert facility. “This is the last B model Mitchell in existence,” said Kermit. “As readers know, the B-25B was the aircraft Jimmy Doolittle used for his famous raid on Japan. The historical significance of the Mitchell is huge. We will be undertaking a ground-up restoration of the B to return it to the condition it was when it left the North American factory in Inglewood.” Carl Scholl said, “The B model is very different from later Mitchells. This particular aircraft was utilized by the movie studios and has had portions of the fuselage cut away to facilitate filming. Anything to do with the B model is rare but because of our extensive inventory of Mitchell components, we will be able to add the majority of the original items.” The restoration is going to be handled by Aero Trader and Cal Aero-Sport. We will be having more details in the next issue along with some very special stories on the Doolittle Raiders.

YANKS
AIR MUSEUM

Bell P-63
Kingcobra

FROM CATS TO COBRAS!
YANKS AIR MUSEUM HAS IT ALL

When visiting Yanks Air Museum, make sure you check out our collection of CATS — and, no, we do not mean our pet “hangar cats” that are always on the prowl!

We mean the Wildcat, Hellcat, Panther, Cougar, Tiger, and Tomcat that are restored and on display. This is one of the largest collections of Grumman Cats anywhere in the world.

When it comes to COBRAS, we have the ultra-rare Airacobra, Kingcobra, and Huey Cobra along with dozens of other beautifully restored aircraft.

Grumman F6F-3 Hellcat

Grumman F-14 Tomcat

MAKE SURE TO VISIT OUR RESTORATION FACILITY AND TOUR OUR AMAZING “BONEYARD” OF FUTURE RESTORATION PROJECTS

Bell P-39 Airacobra

Check out our great wedding venue!

Have your next event at Yanks!

Grumman
F4F Wildcat

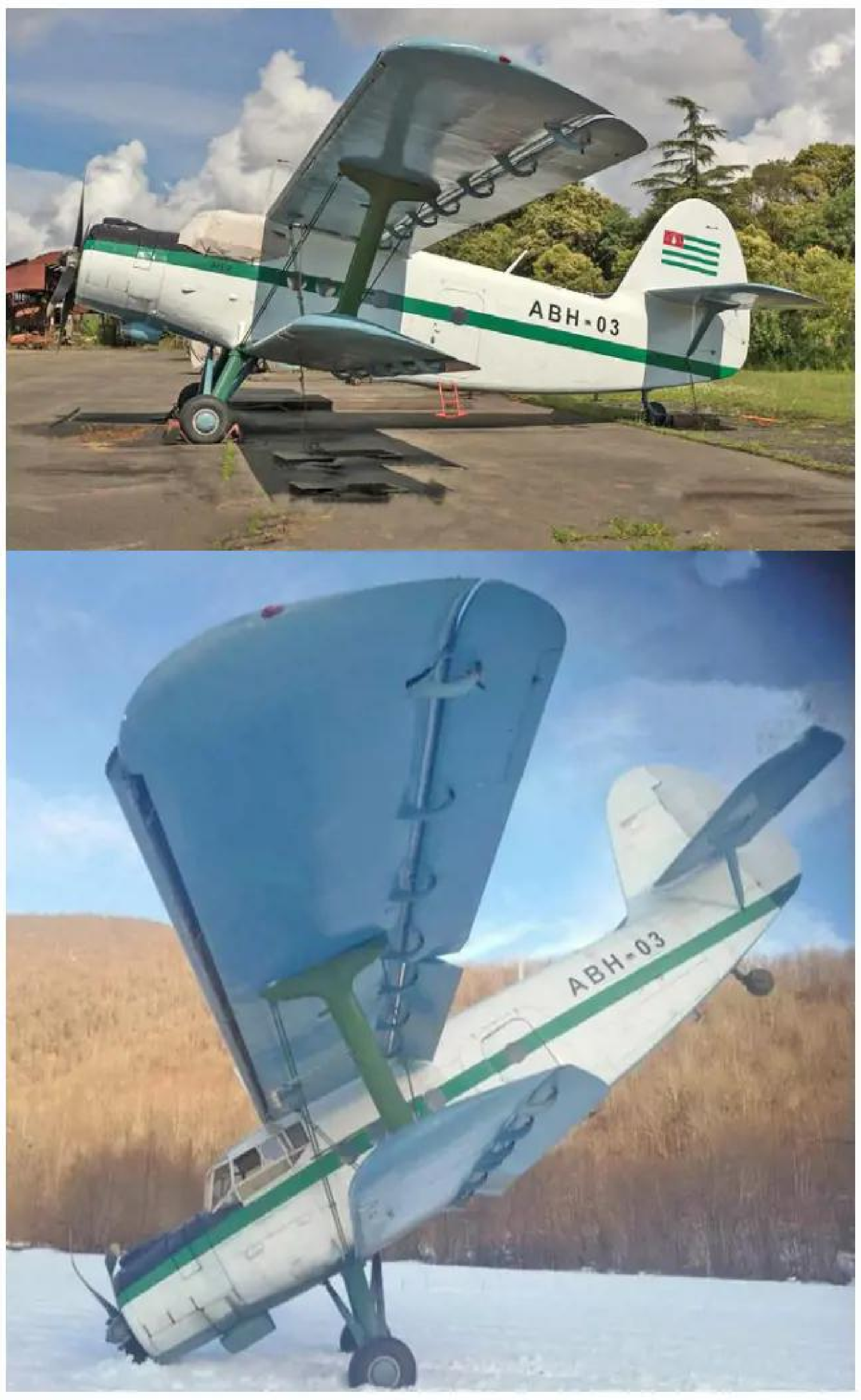
WHERE THE LEGENDS FLY ON!

YANKS AIR MUSEUM AT HISTORIC CHINO AIRPORT
15121 Stearman Drive, Chino, California 91710

Tuesday through Saturday 10:00 am-4:00 pm, closed Sunday, Mondays and Major Holidays

909-597-1735
www.YanksAir.org

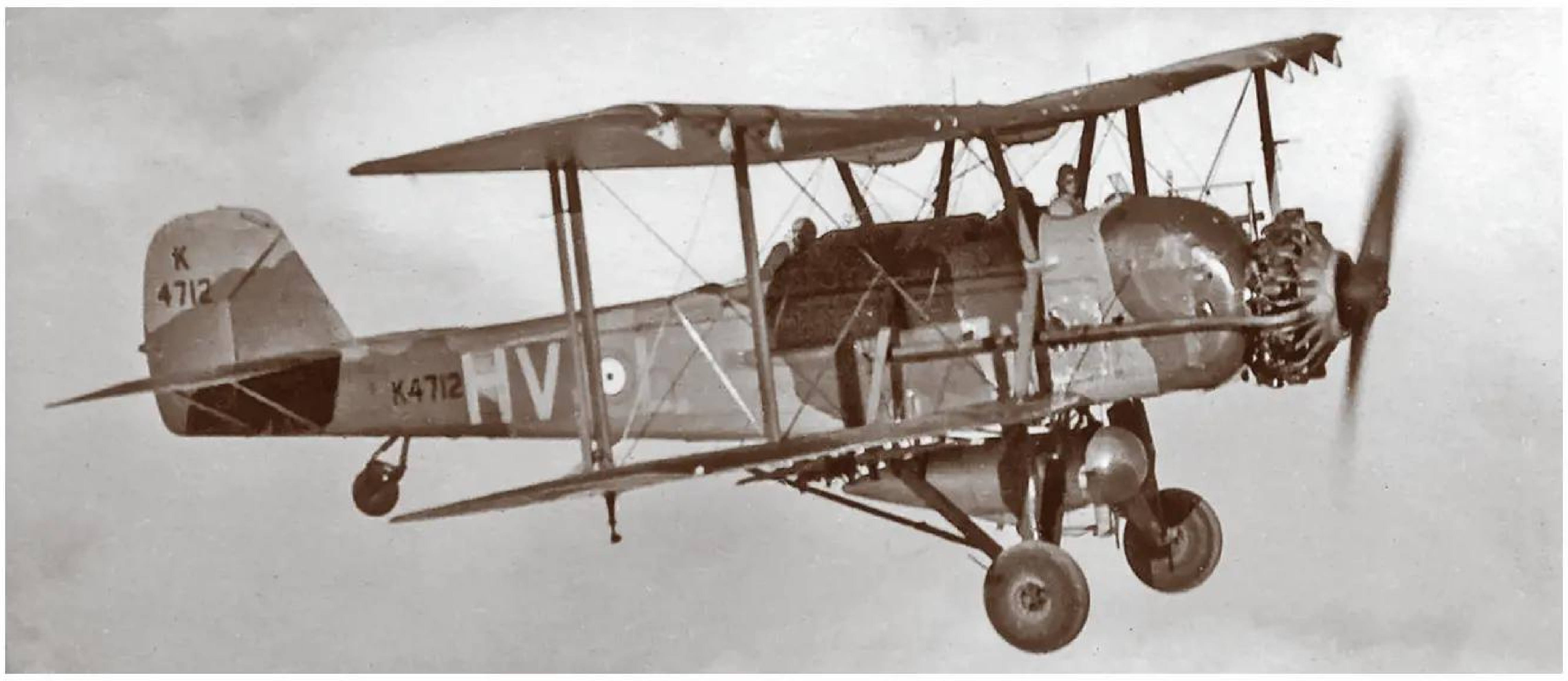
Lockheed 12 photo by
Michael Malak Photography



Before and after view of An 2 ABH-03. A new propeller was installed and the vintage biplane was soon back at work.

COLT OF THE MONTH

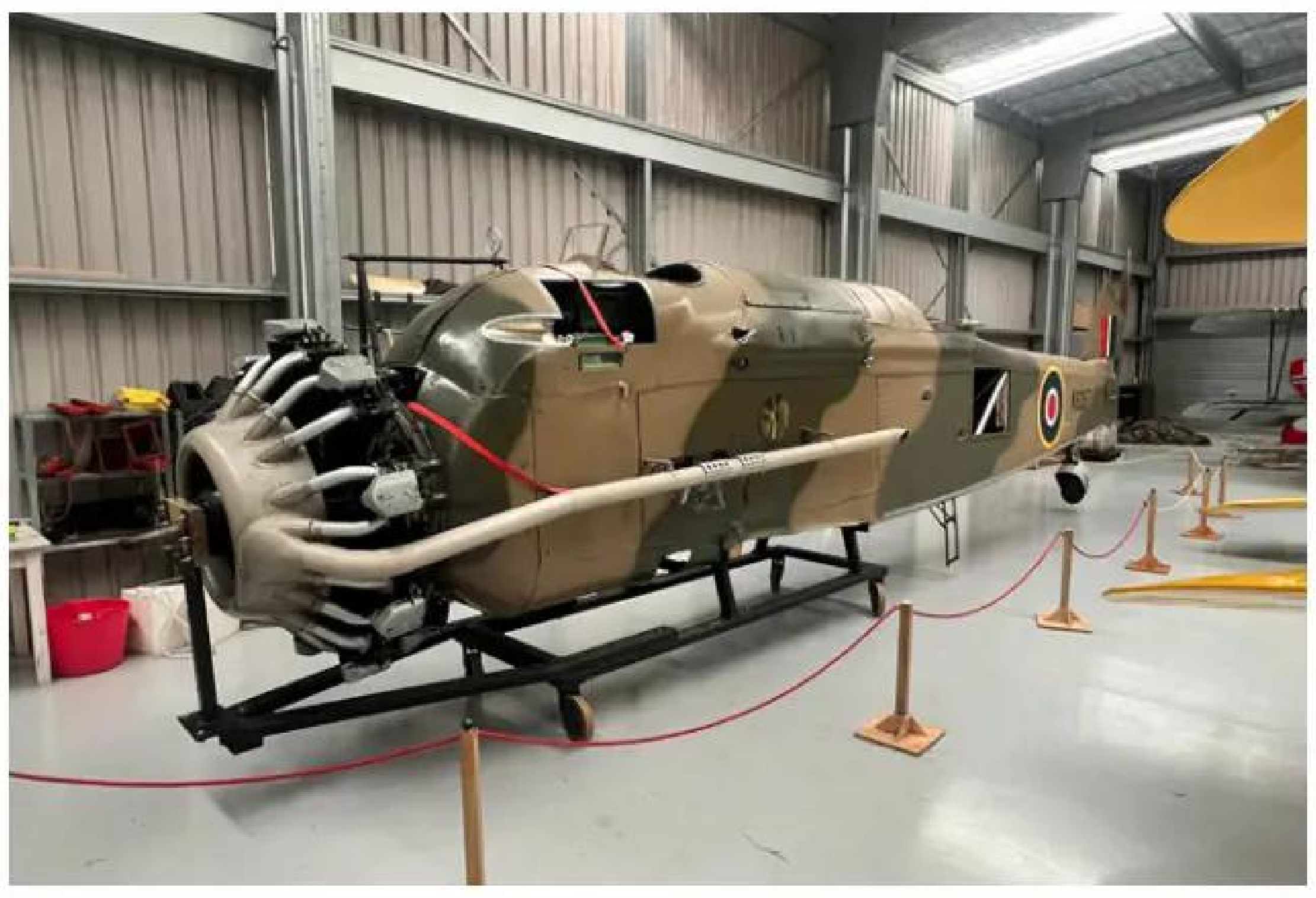
Accidents with the Antonov An 2 Colt seem to occur on a regular basis. The latest incident was not as disastrous as most. An 2TP registered ABH-03 is owned and operated by Abkhazian Airlines (all readers that have flown with this airline, please raise a hand) and was being used in the air ambulance role on 29 January. Carrying a pilot, doctor, and a nurse, the aircraft departed to pick up at patient at Pskhu, Georgia. However, the town does not have an airfield but that is not a problem for the An 2, which was designed to operate off unimproved fields. The plane landed on an open spot that was covered in snow. It then hit a drainage ditch and went up on its nose. No one was injured and the company sent a helicopter to recover the patient along with a mechanic and spare propeller and the Antonov was soon on its way. The An 2 is truly the flying equivalent of the Ford F-150 in these remote areas of the former Soviet Union.



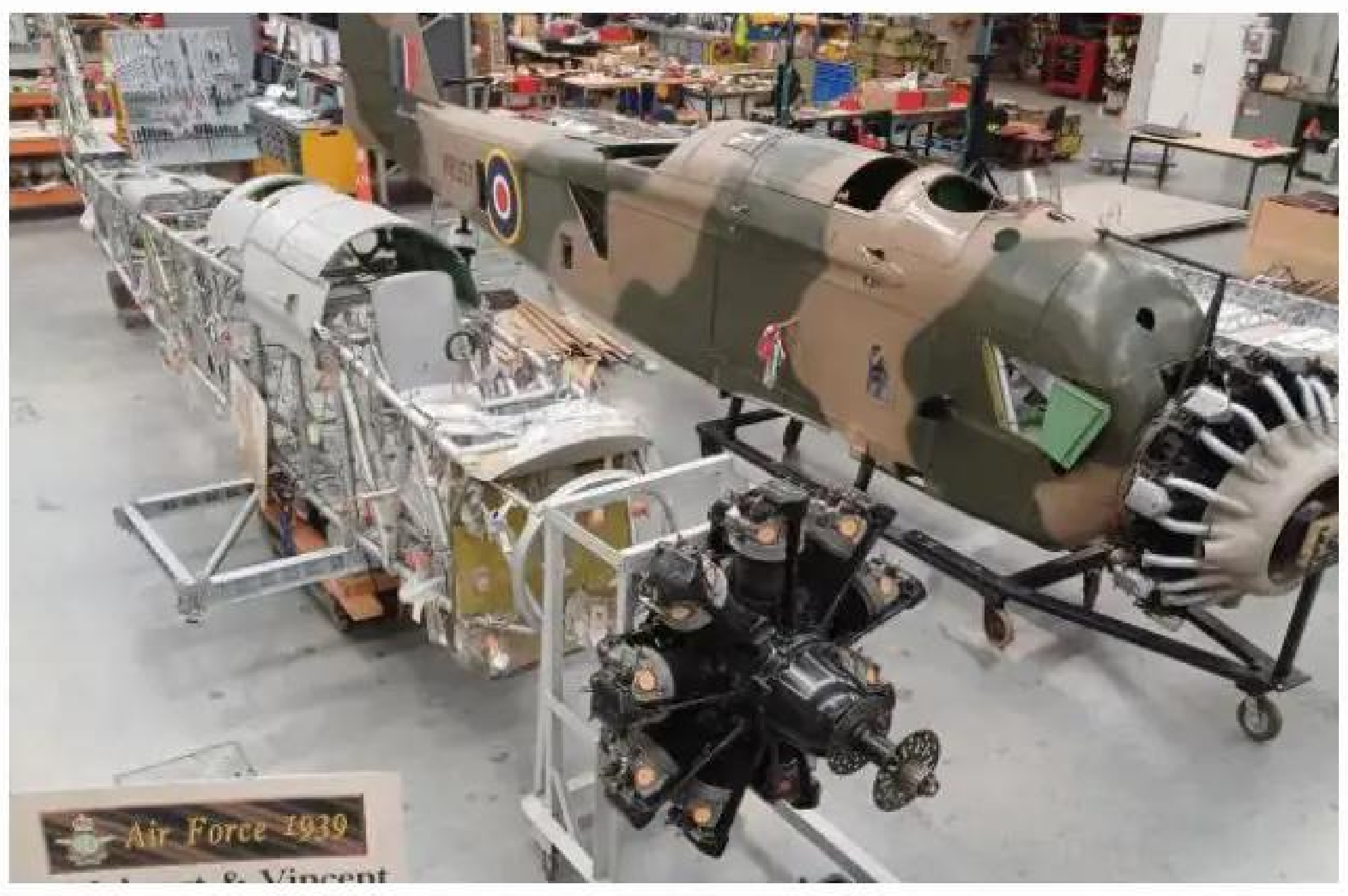
Camouflaged Vickers Vincent K4712 carrying the under-fuselage 100-gallon extra fuel tank. Imagine going to war in this thing against Bf 109s, Oscars, and Zeros.

VICKERS VINCENT

This massive single-engine biplane is a type virtually unknown in the USA but it actually fought in the early days of the Second World War. The Vickers Vincent was created as a light bomber and general support aircraft for use in areas of the Empire where long-range was specifically needed and this was accomplished by carrying a centerline external fuel tank of 100-gallons to give a 1250-mile range. As a general-purpose aircraft, the plane could carry an underwing bomb load of 1000-lbs, desert survival gear, radio equipment, and a message pick-up hook. Defensive firepower was in the form of an ineffectual Vickers Mk. II forward firing machine gun with a Lewis gun in the rear cockpit. During its RAF service, the Vincent was operated by RAF squadrons in Iraq, Aden, Kenya, Abyssinia, and the Sudan beginning in 1935 — a time when it was already woefully obsolete. At the start of WWII, 84 Vincents were flying with No. 8 Squadron in Aden, No. 244 Squadron in Iraq, and No. 47 Squadron in Sudan. The Royal New Zealand Air Force received 22 surplus RAF Vincents. RAF front-line Vincents were retired in 1943. In New Zealand, the Subritzky family began acquiring parts for Vincents as well as the hulks from several crash sites. This started a long rebuilding process that is getting closer and closer to fruition.



The restored Vincent fuselage is on temporary display at NZ Warbirds in Ardmore, New Zealand. The restoration of the Vincent has been a decades-long project of the Subritzky family. The aircraft had the RAF serial of K6357 before becoming RNZAF NZ311. The restoration has been built up using parts from several wrecks. It is refreshing to see all the effort put into the restoration of an aircraft that isn't a Spitfire nor a Hurricane and the completed machine will be an outstanding relic of the dark early days of WWII.



During 2023, the Vincent was photographed with the similar Vickers Vildebeest torpedo-bomber at the RNZAF Museum at Wigram, Christchurch. Vildebeest NZ102 is a long-term restoration project and the loan of the Vincent to the museum greatly aided in restoration since the planes are virtually identical. NZ102 had a most interesting history since it was flown numerous times by Leonard Trent. During August 1942, Trent became commander of No. 487 Squadron flying Lockheed Venturas from RAF Feltwell in Britain. On 3 May 1943, Trent and a force of Venturas made a disastrous attack on a power station in Amsterdam. They meet heavy anti-aircraft fire and fighter opposition. Trent made his bombing run and shot down a Bf 109 with his fixed forward firing guns but the Ventura was hit numerous times and came apart at 7000 feet. Thrown clear, Trent parachuted down but was quickly captured. He took part in the 24 March 1944 escape from *Stalag Luft III*. For his daring attack on the powerplant, he was awarded the Victoria Cross by King George VI.

(continued on page 92)

CURTISS-WRIGHT ENGINE PARTS
R-1820 • R-2600 • R-3350
PARTS • TOOLS • ACCESSORIES
CARL SKINNER Co.
Ph: 805-654-1162 • www.carlskinnerco.com
Curtiss Wright
456
E
NAVY
VT-5

PLATINUM
FIGHTER SALES

OFFERED FOR SALE

Photo Credit: Scott Slocum

1944 NORTH AMERICAN P-51D
"SWAMP FOX"
s/n 44-74202 Reg: N5420V
Call for Price

Photo Credit: Scott Slocum

P-51D MUSTANG
"CRIPES A MIGHTY"
S/n 44-74813 N151BW
Call for Price

1945 GRUMMAN FM-2 WILDCAT
Bu. Num 86680 Reg: N11FE
Call for Price

Photo Credit: Scott Slocum

1974 CANADAIR CF-5D
S/n 116840 N840MQ
Call for Price

Photo Credit: John Willhoff

1962 Canadair CF-104D
S/n 104632 N104RB
Call for Price

Photo Credit: Howard Mitchell

1944 VICKERS-ARMSTRONG LTD.
SPITFIRE MK IXE
S/n PL344 Reg: VH-UIK - Call for Price

Contact: **1.800.210.1951 • sales@platinumfighters.com**

PLATINUM FIGHTER SALES *Purveyors of the World's Finest Historic Aircraft*

www.platinumfighters.com

LOG ENTRIES

BY MARK BINGHAM

THE FUTURE OF WARBIRDS

AT WHAT POINT DOES A CURRENT WARBIRD NO LONGER REPRESENT THE ORIGINAL AIRCRAFT?

The American Heritage Museum's Nieuport 28 has been hailed as the finest restoration example of a WWI aircraft.

I hope that you had your Wheaties this morning because we are now going to wrestle with a couple of questions of Olympic proportions. There are no right or wrong answers to these questions, but we all must wrestle with them in order to assess the future of Warbirds.

The next time you are having a cocktail hour gathering at one of the hangars at your local airport, here are two philosophical questions that you can raise amongst the hangar rats regarding the future of Warbirds that are sure to (a) make you look somewhat intelligent, and (b) will not result in an assault, the use of deadly force, or another undesirable outcome that is likely to result from raising the typical political landmine topics like abortion, student loan forgiveness, election tampering, or invoking the 25th Amendment.

QUESTION #1 — THE RED QUEEN EFFECT

In 1973, the evolutionary biologist, Leigh Van Valen was studying the competitive nature of various species and he identified his "Red Queen" hypothesis to describe the end result of genetic competition in nature. The name comes from a scene in the Alice in Wonderland book by Lewis Carroll: *Through the Looking Glass*. In the scene, the Red Queen tells Alice "Now, here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!"

According to Van Valen, if a change arises in one species that disturbs or unbalances the relationship of that species, the rest of the species is forced to adapt. So, if a tree in the forest grows taller to reach the sunlight, all the other trees must grow taller. If the rabbits in Wonderland get faster, the foxes must also get faster to catch their next meal.

In 2021, anthropologist Thomas Hyland Eriksen published a paper in the journal *Frontiers in Sports and Active Living* that concluded the Red Queen Effect changes the outcome of athletic performance. To that end, Alex Hutchinson in his paper entitled "Speed Trap" published recently in *Outside Magazine*, observed that between 1964 and 2017, only ten high school boys ran a mile race in less than four minutes, but at least five accomplished that feat just this year. Making a *Freakonomics*-type argument, Hutchinson concluded that the evolutionary difference was the 2016 introduction of the Nike Vaporfly running shoes. Who would have thought that $250 carbon-plated running shoes could literally knock minutes off your marathon time? Apparently, Nike expects that we will all follow suit to keep up.

Other examples of the Red Queen Effect are exhibited across the sports field. When engineer and race car driver Jim Hall introduced the aerodynamic wing to the back end of his famous white Chaparral race cars in the early 1960s to improve braking in corners, the competitive field cried foul — claiming the gadget was cheating, until the next year when the McLarens and other race cars were sporting massive wings. Hydrofoils introduced to sailboats in the America's Cup, changed the sport entirely, resulting in the requirement that all entered sailboats must be identical in order to make the competition fair.

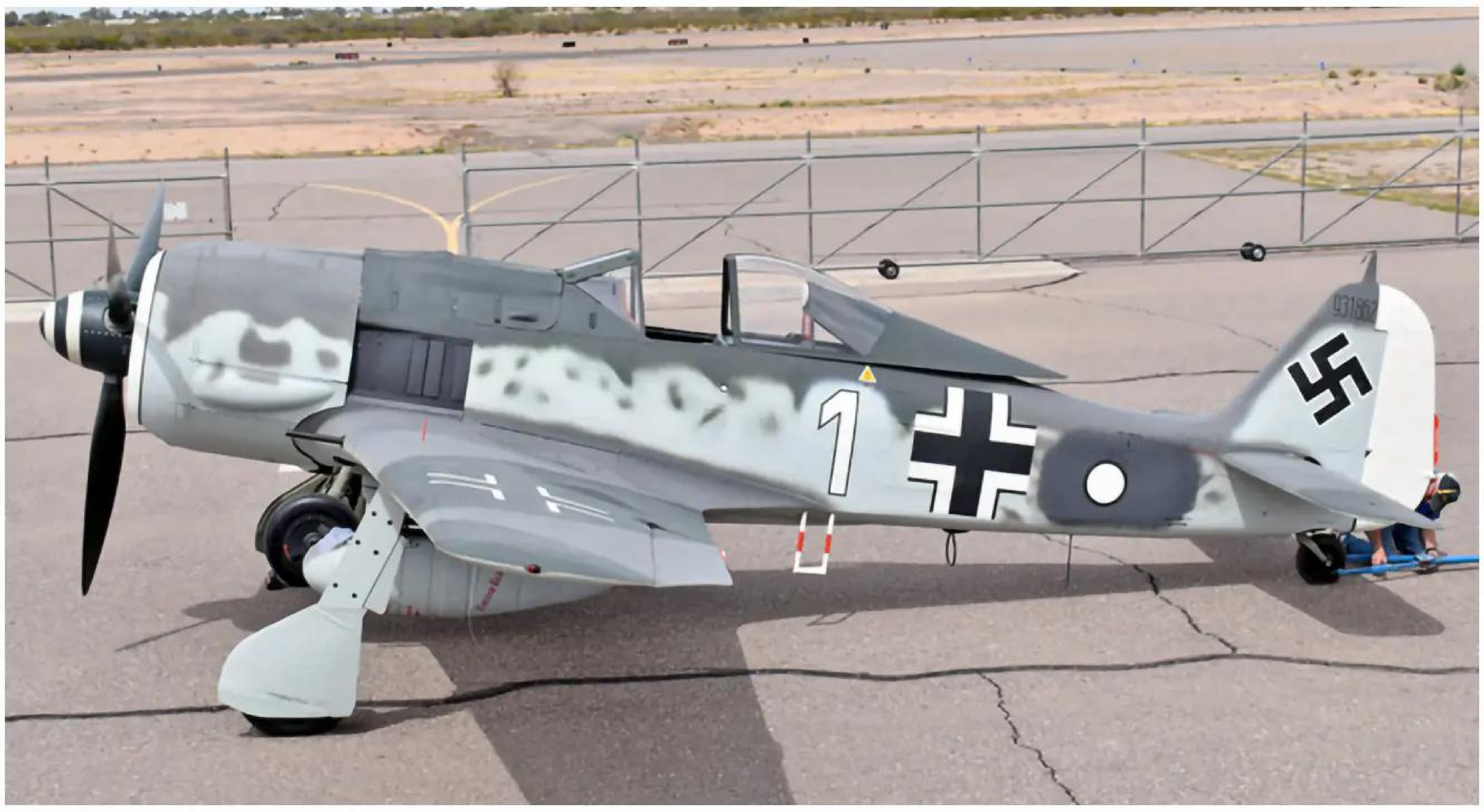
Has the Red Queen Effect infested the Warbird world? The May 2022 issue of *Air Classics* identified the recent completion of two Warbird restorations that have taken the art to the newest, highest standards of originality and perfection. A Nieuport 28, formerly owned by Jim Hall for over 50 years, was acquired by the American Heritage Museum and was restored by Mikael Carlson in Sweden. The craftmanship of the N.28 restoration is stunning. Likewise, the Focke-Wulf 190F restored by Dave Goss at GossHawk Unlimited for the American Heritage Museum, was proclaimed as "perhaps the pinnacle in WWII aircraft restoration" for the accuracy and thoroughness exhibited like no other aircraft that has ever been restored. But are these restorations just the current standard to be exceeded tomorrow when new technologies are developed or the next cache of history is discovered?

Air racing at the Reno (and now Roswell) National Championships exhibits the influence of the Red Queen Effect. Jet heats are limited in speed to 500 mph. We all know that all aspects of aviation (*i.e. faster, farther and higher*) are limited only by time and money. Certainly, jet aircraft can fly faster than 500 mph with just a little more time and money, but in the name of competition and safety, the speed has been throttled with a governor. The T-6 / Harvard / SNJ racing class has similarly been handicapped for the sake of competition by the requirement that only manufacturer standard power equipment may be used. Because of the Red Queen Effect, the racing commission has proclaimed that there will be a height restriction in the forest.

At your cocktail party you must ask whether the Red Queen Effect demand that we achieve the highest standards of craftsmanship and performance with our Warbirds, because if we don't, the next guy in line will have the time and money to set the next standard. Would or should we expect less? Nature genetically will not let us slow down the future.

QUESTION #2 — THE SHIP OF THESEUS

Now we must move out of the forest and back in time to Greek mythology. The Minotaur was a mythical creature with the head and tail of a bull and the body of a man. The Minotaur lived in a maze-like labyrinth designed by the great architect Daedalus and his son Icarus at the command of King Minos of Crete. Yes, that same Daedalus and Icarus upon which all aviation is based. After ascending to the throne in Crete, Minos prayed to the sea god Poseidon for a snow-white bull that Minos would sacrifice to honor Poseidon. But the bull was so beautiful that Minos decided to just keep him instead. Poseidon punished Minos by causing his wife Pasiphae to fall in love with the bull, and the Minotaur was the end result of the resulting love passion. The Minotaur would devour humans for its sustenance, so Minos had the labyrinth built to hold the Minotaur.



Also owned by the American Heritage Museum and restored by GossHawk, this Fw 190 has been stated to have set new standards in restoration. What will the next decade bring?

Androgeus was the son of Minos and his death was caused by the people of Athens in jealousy of his victories at the Panathenaic Games. In retribution, Minos had Athenian boys and girls sacrificed as the penalty for Androgeus' death by putting them in the labyrinth to feed the Minotaur. Theseus was an Athenian prince who volunteered to slay the Minotaur in order to save the youth of Athens. Theseus promised his father King Aegeus that he would change the black sail on his ship to white on his return trip if he was successful in killing the Minotaur. Naturally, when Theseus came to Crete, Minos's daughter Ariadne fell madly in love with Theseus and she helped him navigate the labyrinth by giving him a ball of string to allow him to retrace his path. Theseus killed the Minotaur and led the young Athenians out of the labyrinth and sailed away from Crete along with Ariadne. Unfortunately, Theseus forgot to change the sail on his ship from black to white on his return trip, so Aegeus killed himself in his sorrow over the apparent failure by jumping into the sea that is named for him, and Theseus ascended to the throne in Athens. Each year the Athenians would commemorate the great act of Theseus by taking the ship on a pilgrimage. After several centuries of maintenance, surely every part (sail, mast, rudder, oars, boards, etc.) of the Ship of Theseus had to be replaced.

The question for your cocktail party is: At what point in time did the Ship of Theseus no longer represent the actual ship if every part was replaced? Was the replication, restoration, or representation of the ship the actual Ship of Theseus? Was the pile of discarded parts the actual Ship of Theseus?

Hopefully, you can see the parallel to the Warbird world. Not every Warbird has a pedigree or provenance that can be traced from its date of birth from the manufacturer to its current owner. Many Warbirds have been combined from various wrecks that cause genealogical fits when trying to trace aircraft serial numbers. Similarly, restorations of aircraft starting from a data plate alone may in fact be stunning and might even set the next restoration standard for the industry, but they are not the same aircraft that left the manufacturer's assembly line.

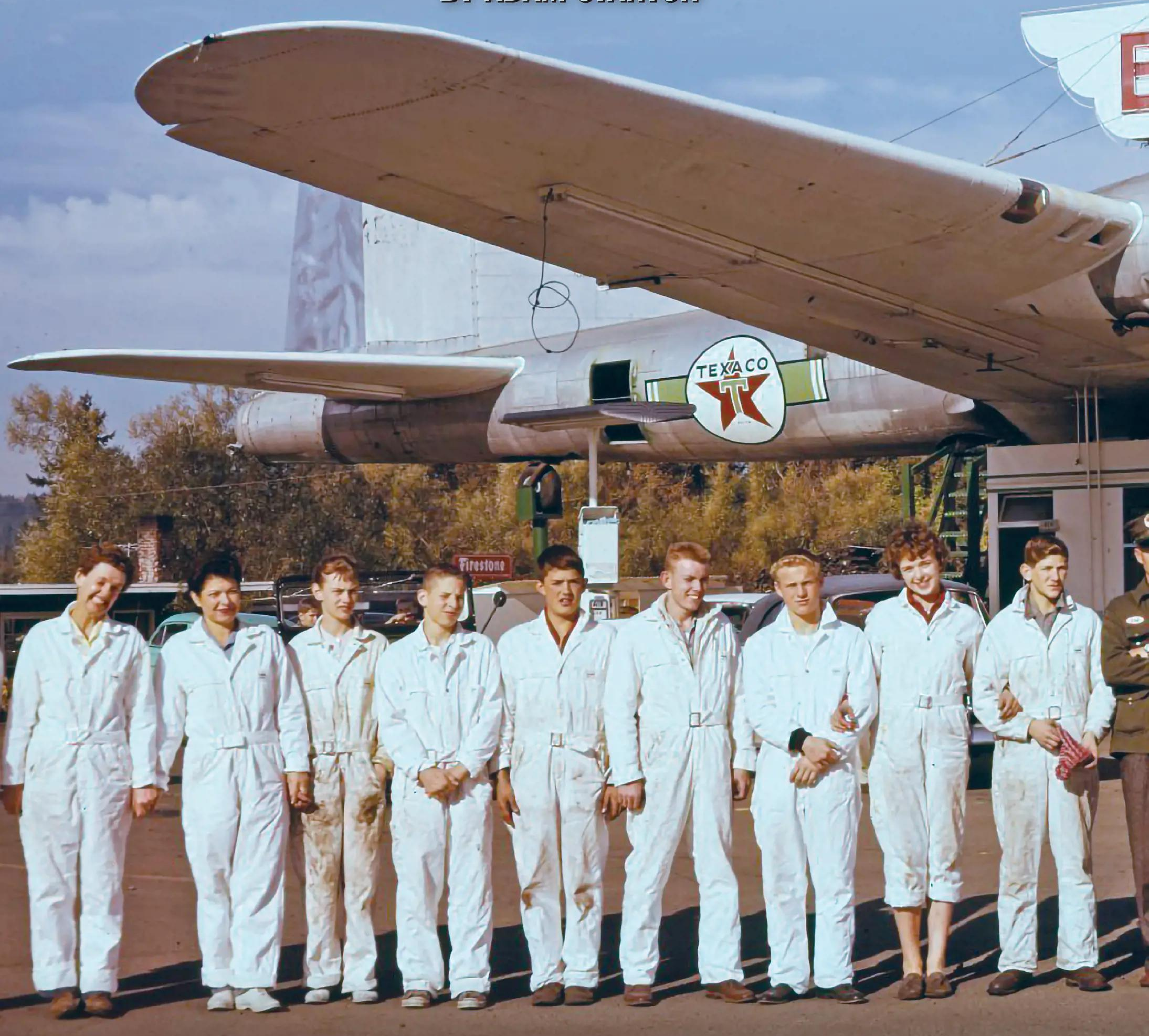
At what point in time does a Warbird no longer represent that actual aircraft if every part was replaced? Is the replication, restoration, or representation of the aircraft the actual Warbird? Is the pile of discarded parts the actual Warbird?

Drink up and raise a toast to the Red Queen, and to Theseus, and to all of the problems that they have caused. **AC**

"FILL 'ER UP!"

FURTHER SELECTION OF AVIATION-RELATED DISPLAYS UTILIZED AS ROADSIDE ATTRACTIONS - PART TWO

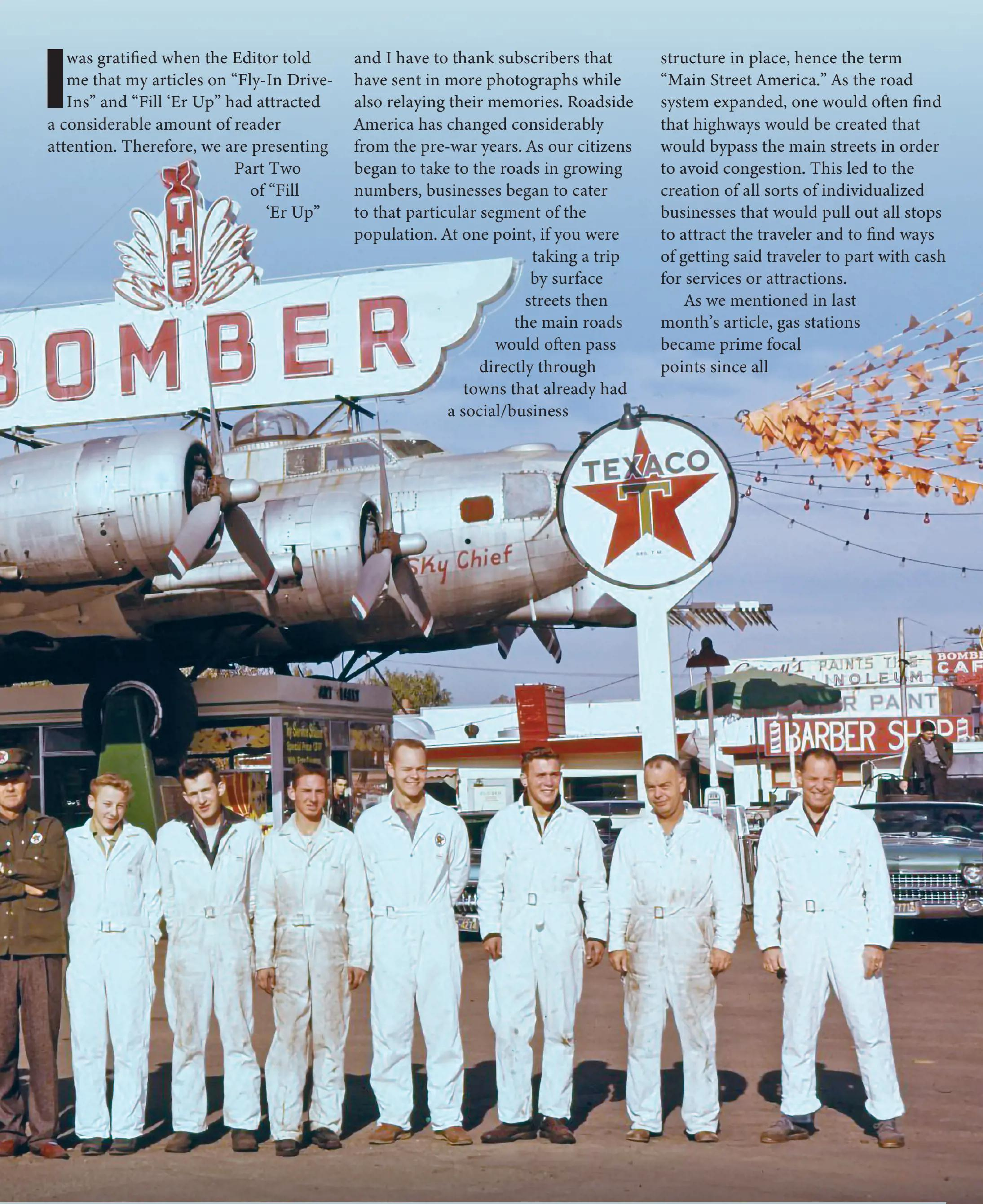
BY ADAM STANTON



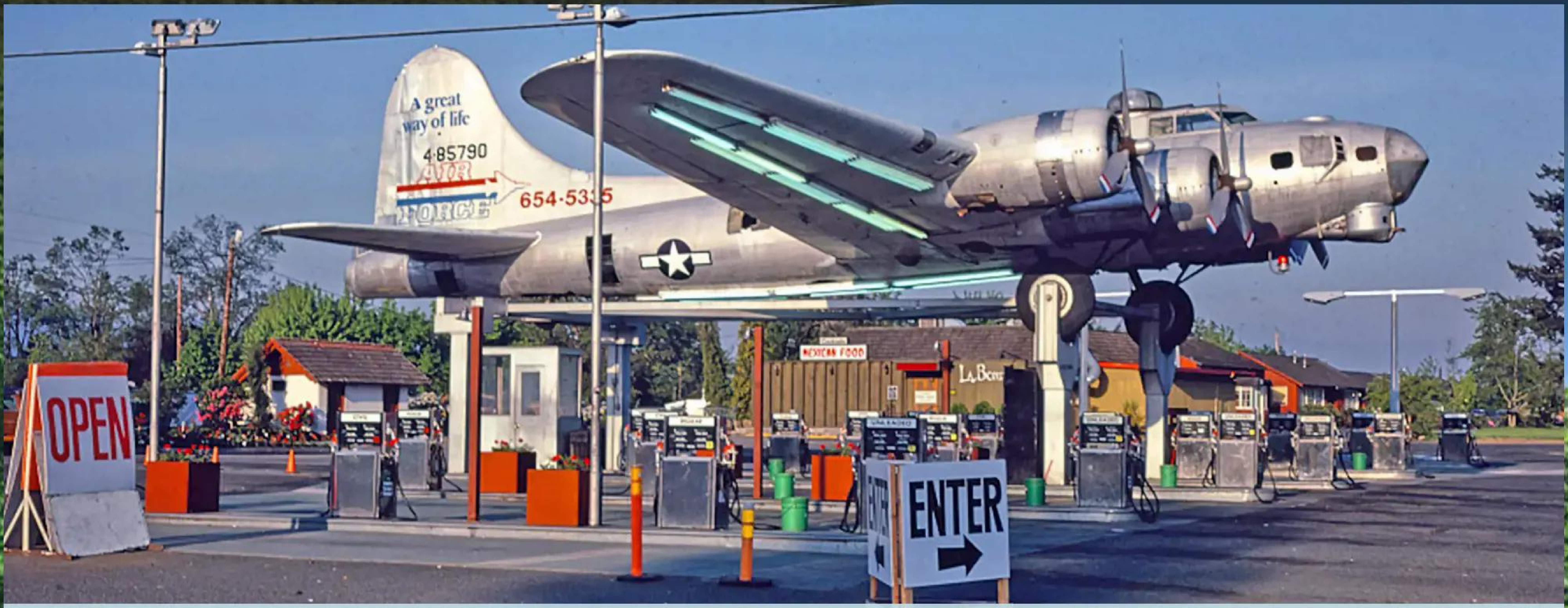
I do not think anyone would dispute that the title for "Ultimate Warbird Gas Station" should go to the Flying Fortress perched over the pumps at Milwaukie, Oregon. The B-17G was purchased by businessman Art Lacey from the surplus field at Altus AAFB where hundreds of similar aircraft awaited the scrapman's torch. Flown to Portland (Art was a great story teller and loved to tell about all the adventures he encountered when he flew the plane to Portland but, unfortunately, 99% were untrue. However, they have become part of the "record" on the bomber. In a past *Air Classics*, we published a letter from the pilot that actually flew the aircraft and that pretty much set the record straight). Once the bomber was placed atop its stout pylons, it became an instant attraction and customers pulled in for gas and the other items Art had for sale. Sadly, Art never did any

I was gratified when the Editor told me that my articles on "Fly-In Drive-Ins" and "Fill 'Er Up" had attracted a considerable amount of reader attention. Therefore, we are presenting Part Two of "Fill 'Er Up" and I have to thank subscribers that have sent in more photographs while also relaying their memories. Roadside America has changed considerably from the pre-war years. As our citizens began to take to the roads in growing numbers, businesses began to cater to that particular segment of the population. At one point, if you were taking a trip by surface streets then the main roads would often pass directly through towns that already had a social/business structure in place, hence the term "Main Street America." As the road system expanded, one would often find that highways would be created that would bypass the main streets in order to avoid congestion. This led to the creation of all sorts of individualized businesses that would pull out all stops to attract the traveler and to find ways of getting said traveler to part with cash for services or attractions.

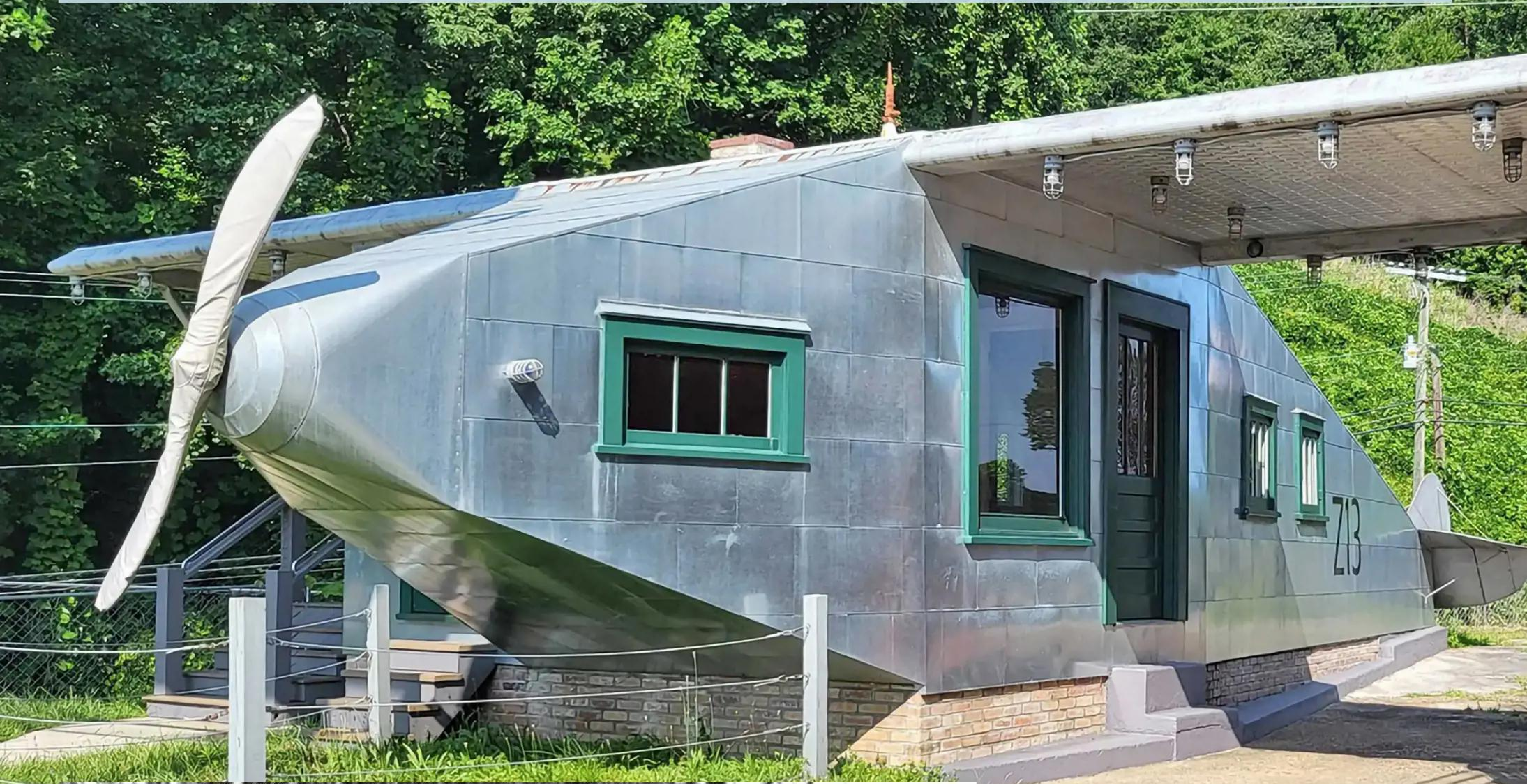
As we mentioned in last month's article, gas stations became prime focal points since all

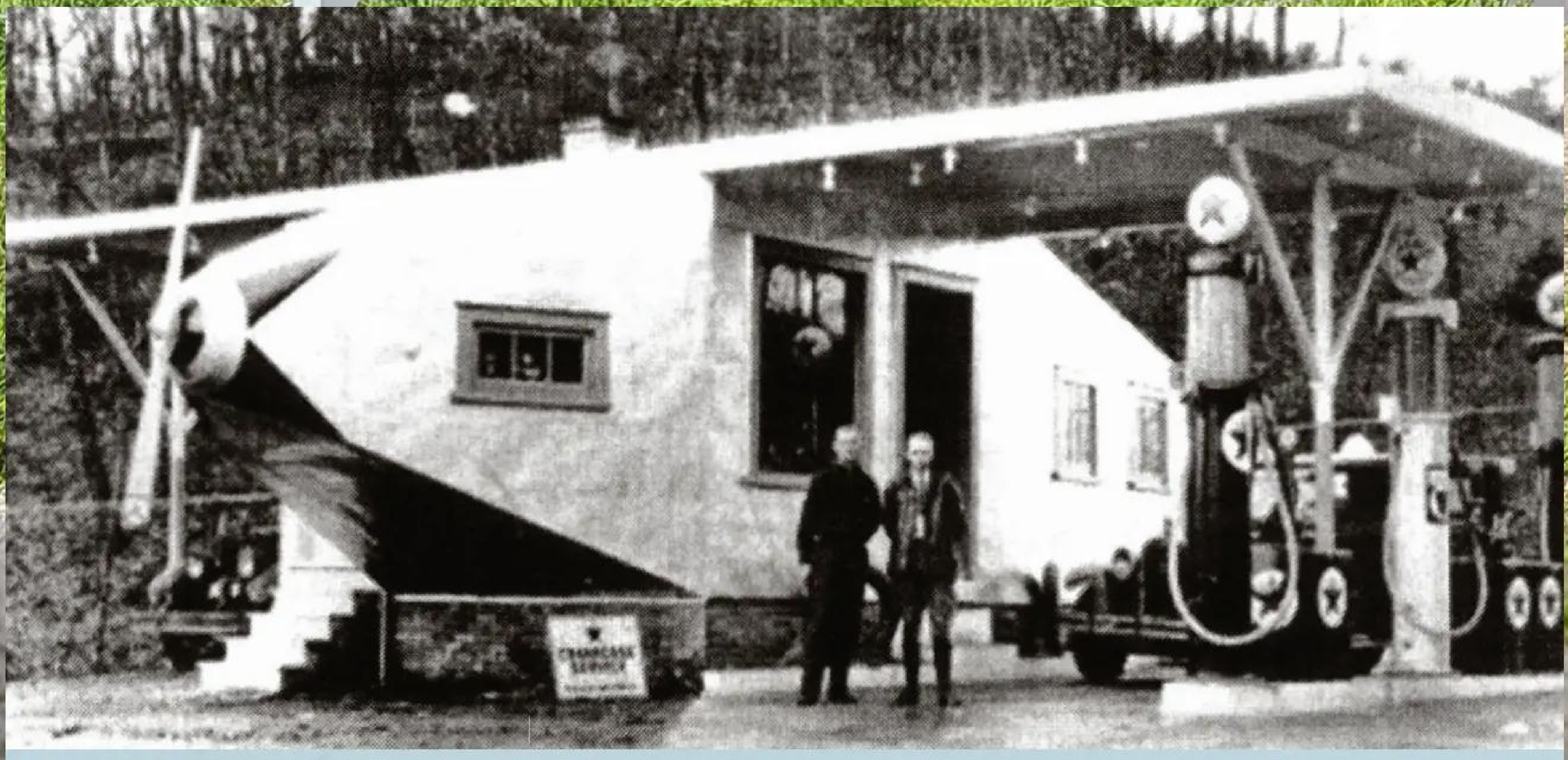


maintenance or attempt any form of preservation with the now increasingly-rare Fort and its condition went downhill over the decades with birds living inside and corrosion taking a deep hold on the airframe. When the Warbird movement started, Art sold the turrets (by now, extremely rare items) to the CAF and mock-up replacements were installed. In this view, The Bomber Gas Station is open and ready for business with a full crew of gas jockeys waiting to take care of the needs of every motorist. In the right background, we can see a slice of 1950s' roadside life with small independent businesses including a barber shop, a paint/tile store, and the Bomber Café. Truly, a different time in America. Also, we have to wonder on what happened to that magnificent neon sign atop the Fort.



Over the years, the Fort went through numerous changes. Full-service became self-service and all those eager-to-help gas jockeys faded into the past. The massive neon sign disappeared, fluorescent lighting was drilled into the bottom of the wings, the Bomber Café became a Mexican restaurant, and the overall condition of the Fort slid downhill.





The Nickle brothers with their Texaco station, which they probably built mainly with their own hands. Local lore states that, to make a little extra income, the brothers were also engaged in the manufacture and sale of moonshine. After 35 years as a fueling station, the building entered a long decline as a fruit stand, liquor store, bait shop, and used car lot.

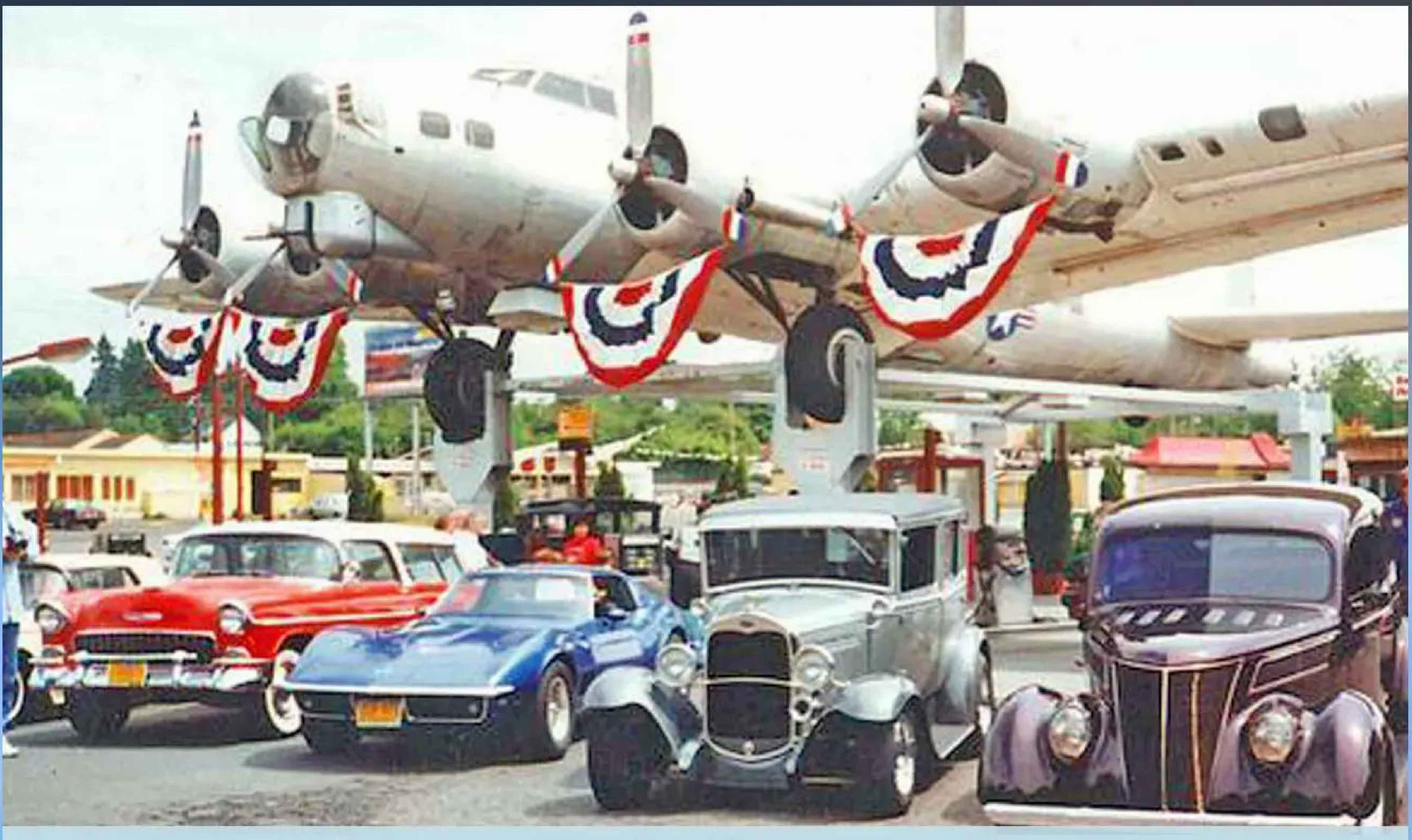
auto travelers would need fuel, oil, and repairs. For those readers of *Air Classics* that have been around long enough, then we can remember when stations used to engage in price wars along with give-aways such as sets of drinking glasses. Today, these roadside give-aways have become quite collectable in their own right and we can look back with a certain nostalgia on things like "full-service."

Lindbergh's epic flight kicked off the era of "airmindedness" in America and that was a period where

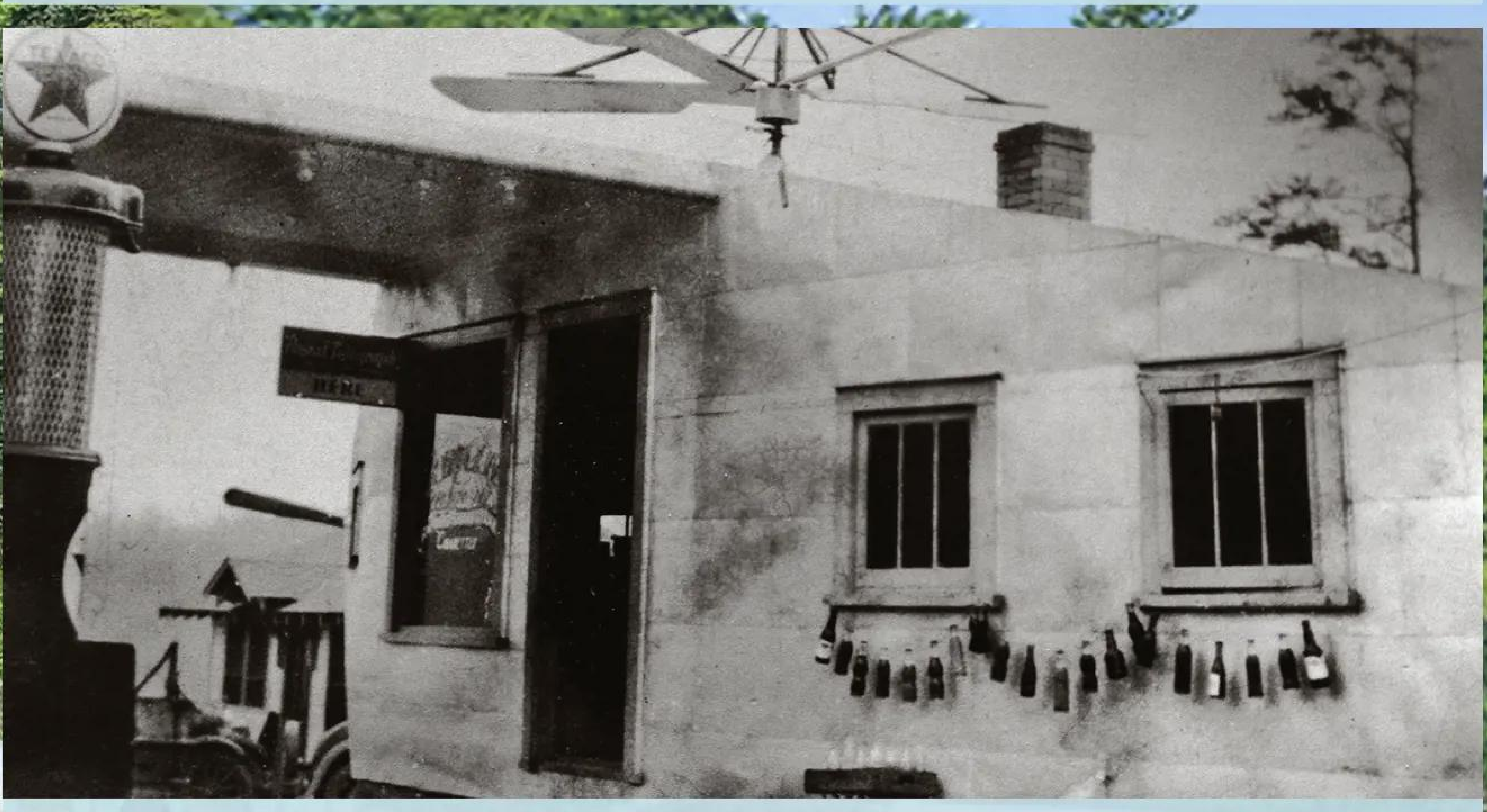
With this one, you can almost hear the banjo refrain from *Deliverance*. The Airplane Service Station has somehow survived over 90 years of use sitting by the side of the Old Dixie Highway in Powell, Tennessee. Brainchild of brothers Elmer and Henry Nickle, they built the ramshackle business to resemble Lindbergh's Ryan monoplane. There was absolutely nothing real about their creation but they hoped the aeronautical appearance would attract customers to pull in for a fill-up when they opened in 1931. Gas pumps were under the left "wing" while oil changes/repairs would be carried out under the right. Apparently, one of the brothers would sleep in the structure in order to service late-night travelers. As with many other roadside businesses with individual character, The Airplane Service Station became a victim of the expanding interstate highway system and this unique little bit of roadside America appeared doomed.

TEXACO
GASOLINE
TEXACO
FILLING STATION

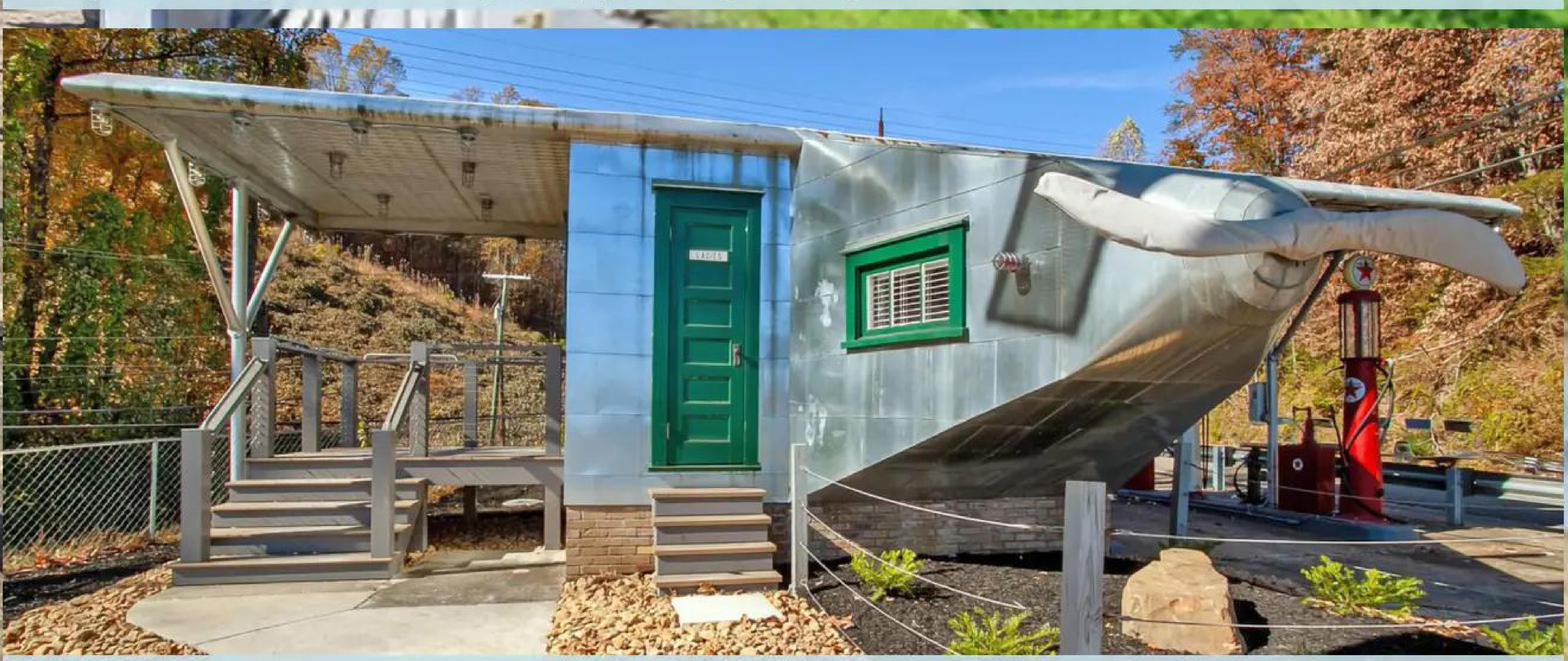
anything involved with aviation was positive and good. Almost every town attempted to have some type of "airfield," even if it was just a flattened piece of farm land. Civic boosters realized that aviation could promote business and towns with landing strips could perhaps catch some of this activity. Of course, it usually did not work out that way but towns with such fields soon found themselves with visiting aircraft and those planes could be bringing in businessmen interested in expanding



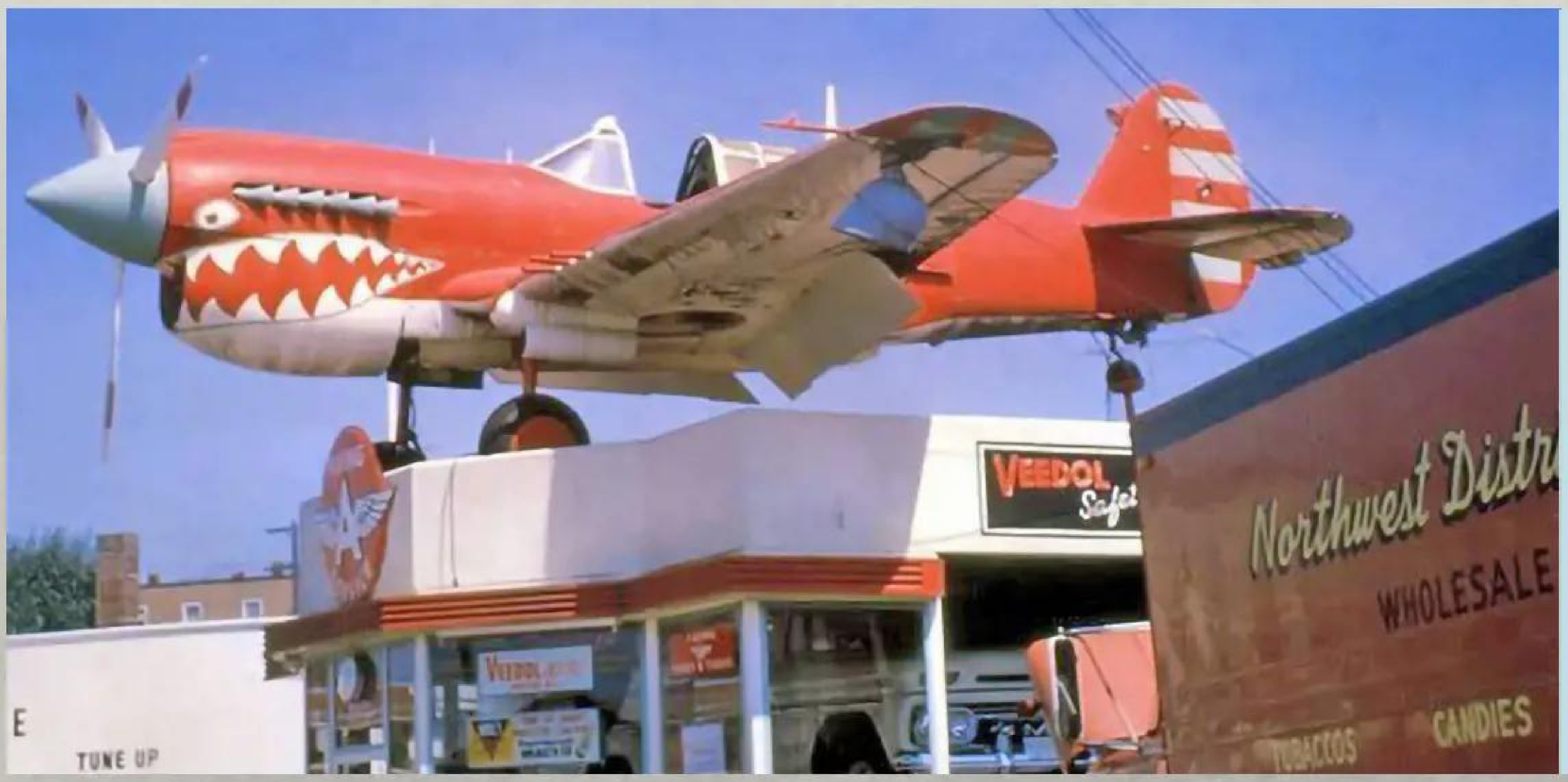
By the 1990s, nostalgia was sweeping America and somehow we thought the past was better than the present. Accordingly, The Bomber began to host gatherings of vintage cars and other displays of a bygone America. Finally, the value of the aircraft had greatly increased and the plane was slowly dismantled and portions trucked to a nearby airport where a sporadic effort at returning the plane to airworthy condition began. This is an immense undertaking that will literally cost millions of dollars plus it is a restoration that needs to be handled correctly, especially given the recent Airworthiness Directives regarding the wing spars.



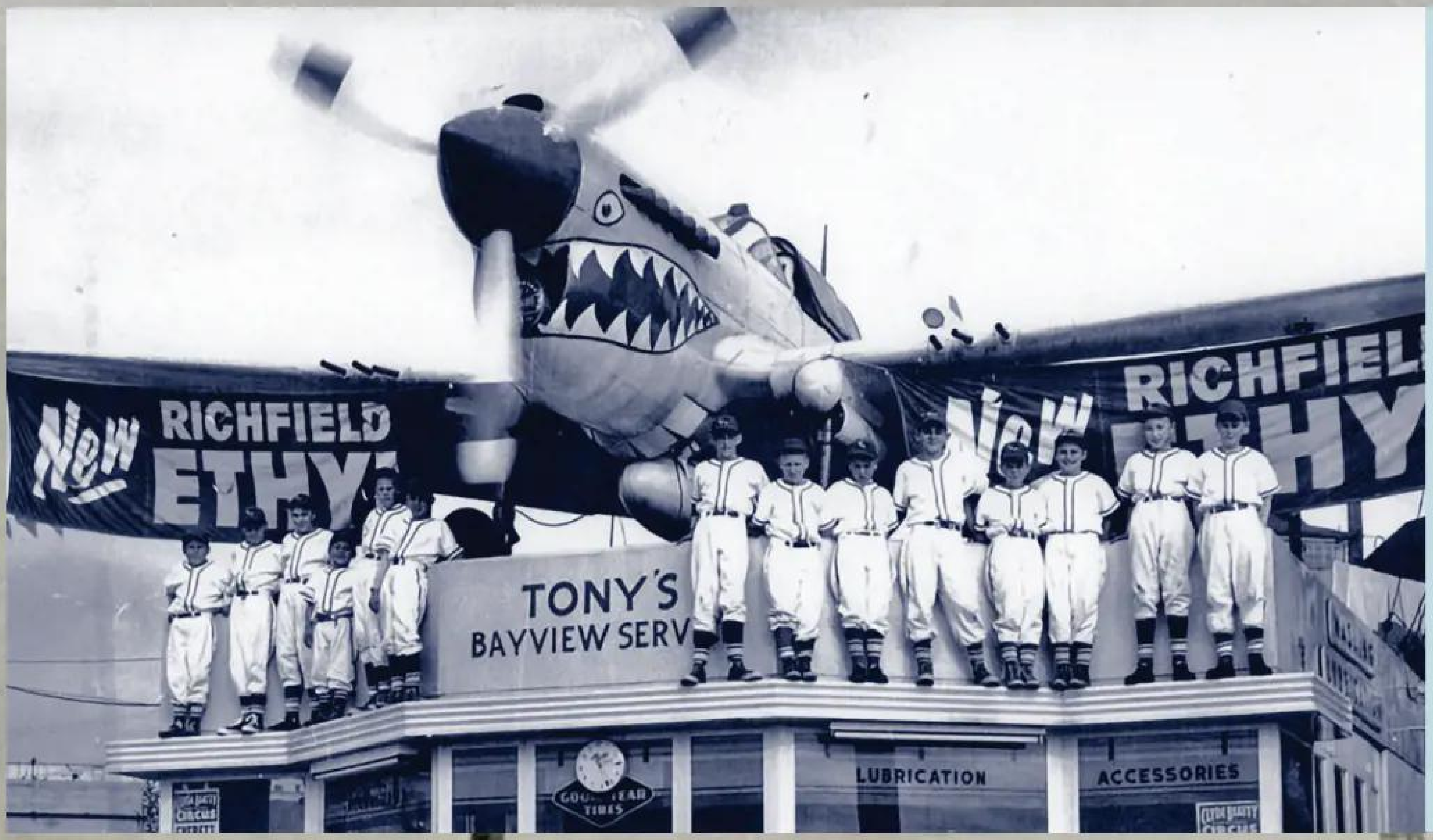
This interesting close-up shows a variety of bottles hanging from the windows, perhaps an indication of the station being used as moonshine still. Also, the brothers have added set of rotors to perhaps cash in on the interest in the new-fangled autogiros that began appearing during the1930s.



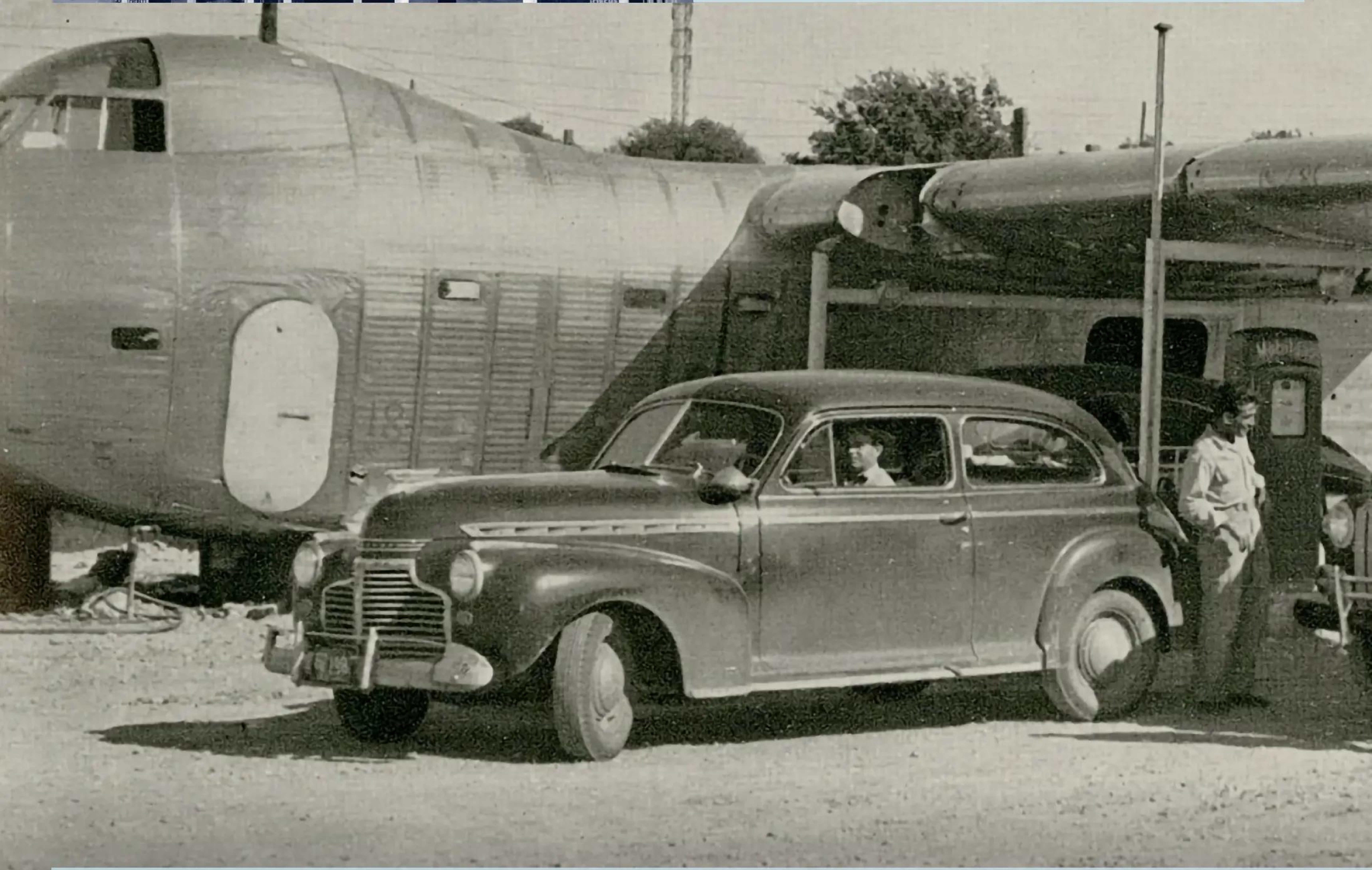
By 2003, the building was closed. It was rotted, covered in vegetation and ready for the bulldozers. Fortunately, a couple local citizens became concerned with the preservation of this piece of aviation roadside architecture and started a movement that saw the structure rebuilt and then placed on the National Register of Historic Places. A lot of care went into the rebuild and even the "Z13" lettering was replicated although no one knows what it means. Students at the local college hand-crafted a wood and brass propeller for the front of the building. The brothers had installed a Ford engine that could be cranked up to turn the prop. The building's last use was as a barbershop but that business closed in 2023. The structure was then rebuilt into an Airbnb rental.



For years, drivers in Everett, Washington, would pass by a bright red Curtiss P-40 and probably not think a heck of a lot about the rather strange sight of a WWII fighter perched atop a gas station. This aircraft is well-known to *Air Classics* readers since it is one of the famous $50 surplus Royal Canadian Air Force Kittyhawks. This particular plane served as RCAF AK899 and flew with No. 111 Squadron but there was little post-war use for the plane and the P-40s were sold off for $50 each — your pick. The plane was barged from Vancouver Island (home of the Mars featured elsewhere in this issue) and became the property of Tony Dire's Flying A Texaco station in 1946. As can be seen, the canopy was left open and no attempt was made to preserve the aircraft from the harsh Washington weather.



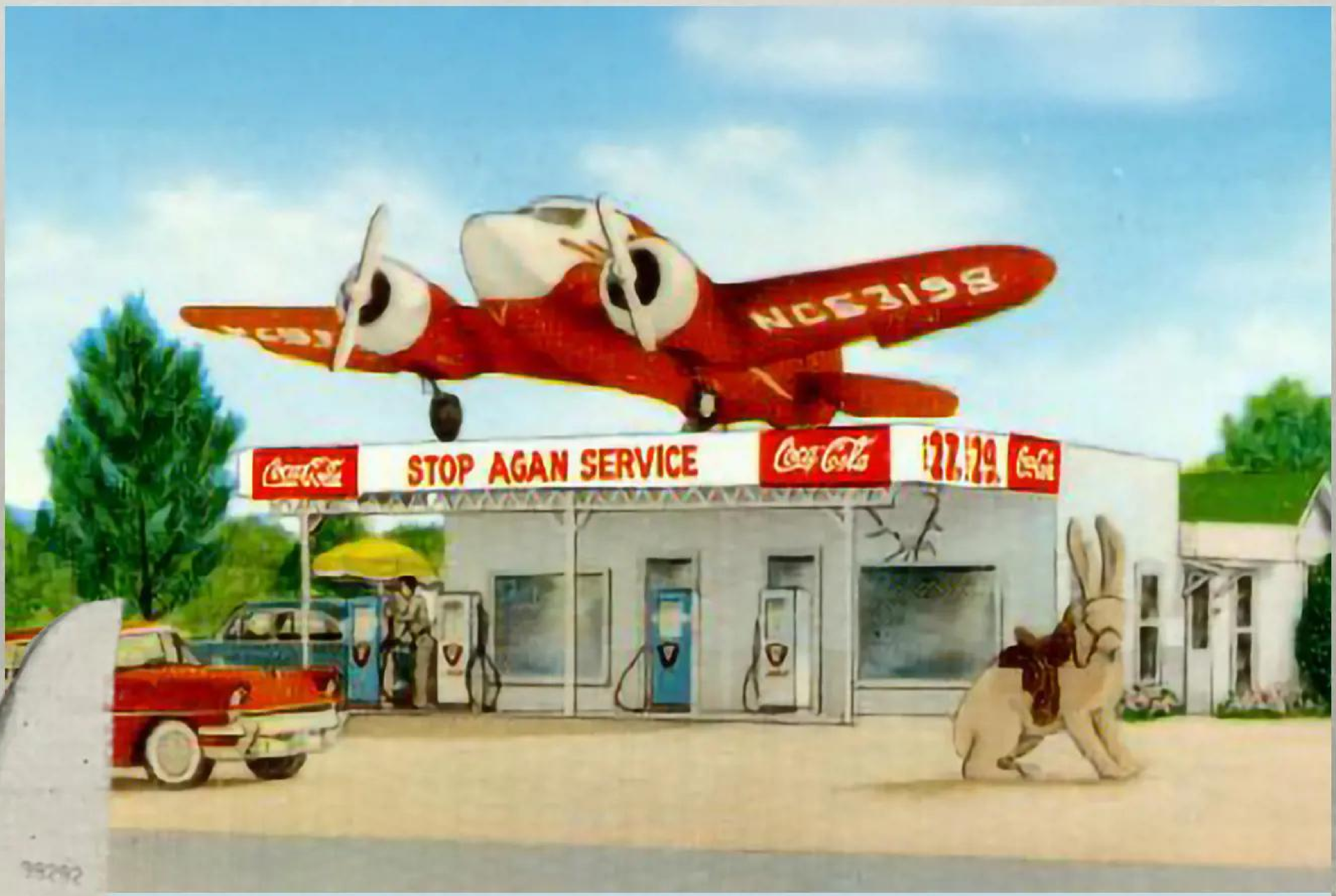
Tony's Flying Tigers pose with the Kittyhawk for a newspaper photo. Tony certainly got his money's worth out of the P-40. Tony had rigged an electric motor that would spin the prop and it can be seen slowly moving in this photo with the ball team. The aircraft sat on its perch for a bit cover two decades and in 1968 it was obtained by restorer Bruce Goessling. The aircraft was disassembled and trucked to Van Nuys Airport. It then traveled to Chino where restoration began and the P-40E went through several owners, obtaining the civil registration N9837A. Obtained by Richard Hansen in Batavia, Illinois, during 1987, the plane was subjected to a long restoration and made its first flight on 1 February 1992. In January 2006 it was purchased by Warbird enthusiast Bob Baranaskas but on the 22nd of that month, the plane was damaged in a forced-landing near Riverhead, New York. Repaired, it was totally destroyed on 5 April 2009 and Baranaskas was killed while practicing aerobatics over the ocean.



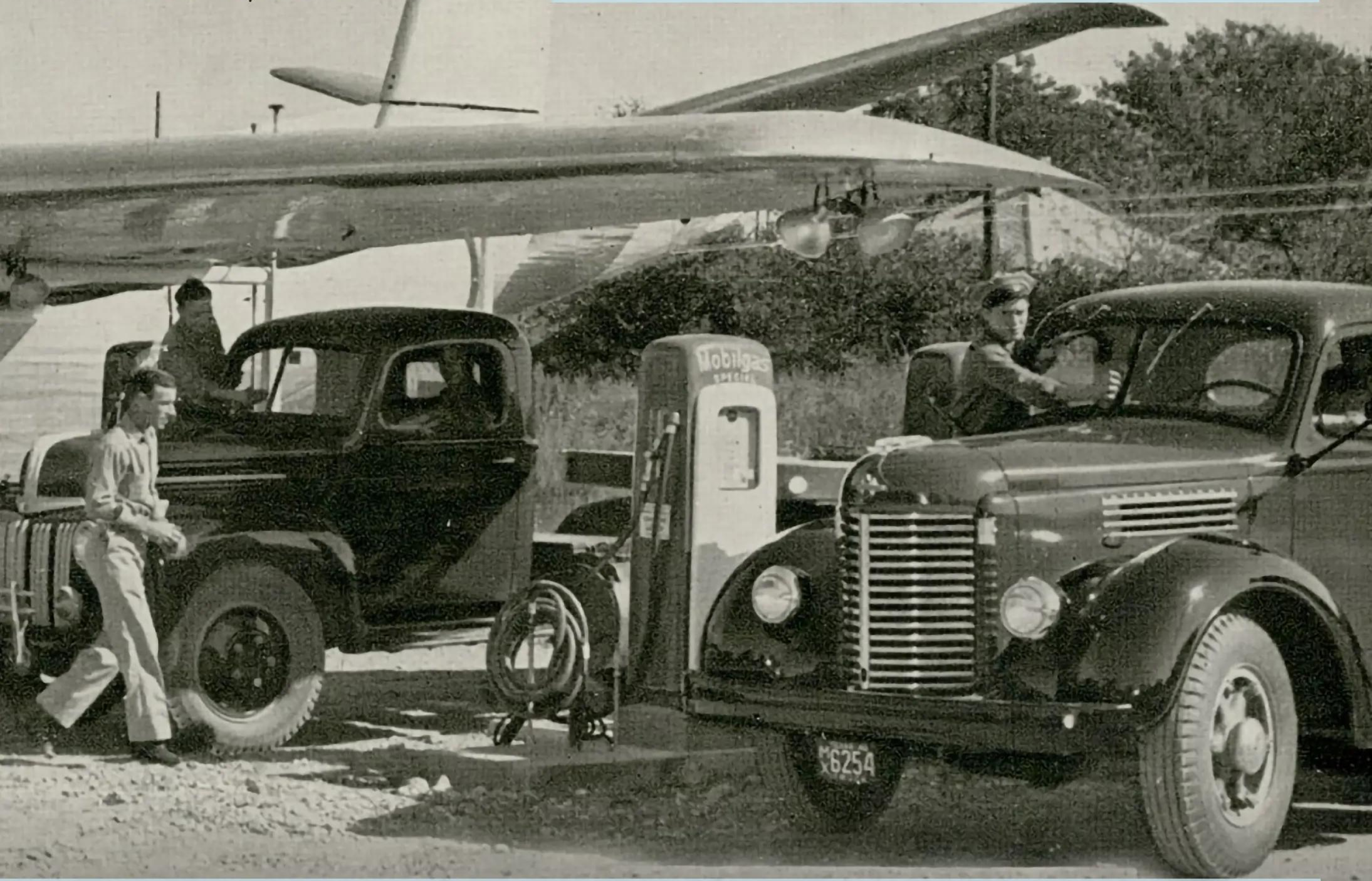
In the last issue, the Editor commented he had a vague childhood memory of seeing a derelict Budd RB-1 Conestoga that had been used as a gas station in the Fort Worth, Texas, area. This got Canadian Editor Doug Fisher digging into his vast collection and he came up with a photo of the twin-engine stainless-steel transport, which was one of America's better-known WWII aircraft failures. The American military found little to no use for the aircraft and the type was being placed for surplus sale even before the Pacific War had ended. This particular airframe is of interest since it was the first RB-1 (c/n 001, BuNo 39292) and initially carried the experimental registration NX41810 (later changed to NC after the type won its CAA certification on 15 July 1944). The Budd made its first flight on 31 October 1943 with famed air race pilot Benny Howard at the controls. After relatively limited a town's particular industry.

After the war, huge numbers of surplus aircraft were available for just about any need possible. Intact and flyable aircraft such as trainers were very, very cheap but then there were hundreds of damaged aircraft or planes missing certain vital components such as engines. These non-flyers could be obtained for next to nothing. The Royal Canadian Air Force was selling off its force of surviving (and flyable) Curtiss Kittyhawks for just $50 each and one of these machines became an attraction at an Everett, Washington, Texaco station where it remained for many years.

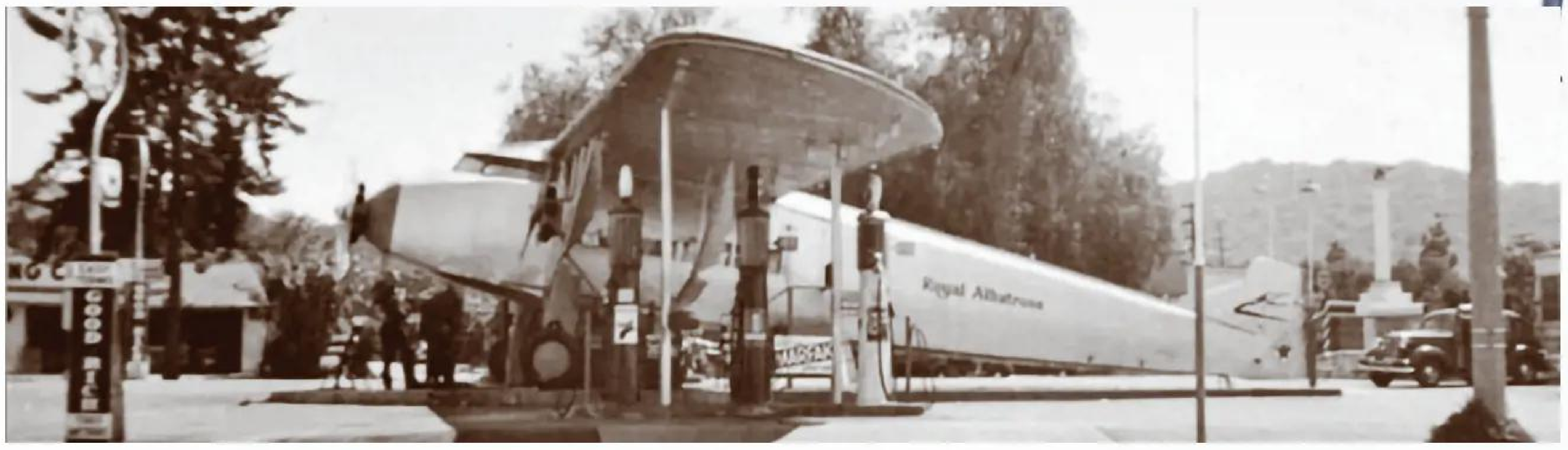
What was the first post-war aircraft utilized as a roadside attraction? That is a question that is really hard to answer but one of the first must have been the Budd RB-1 Conestoga featured in this issue. Although exact information is very difficult to



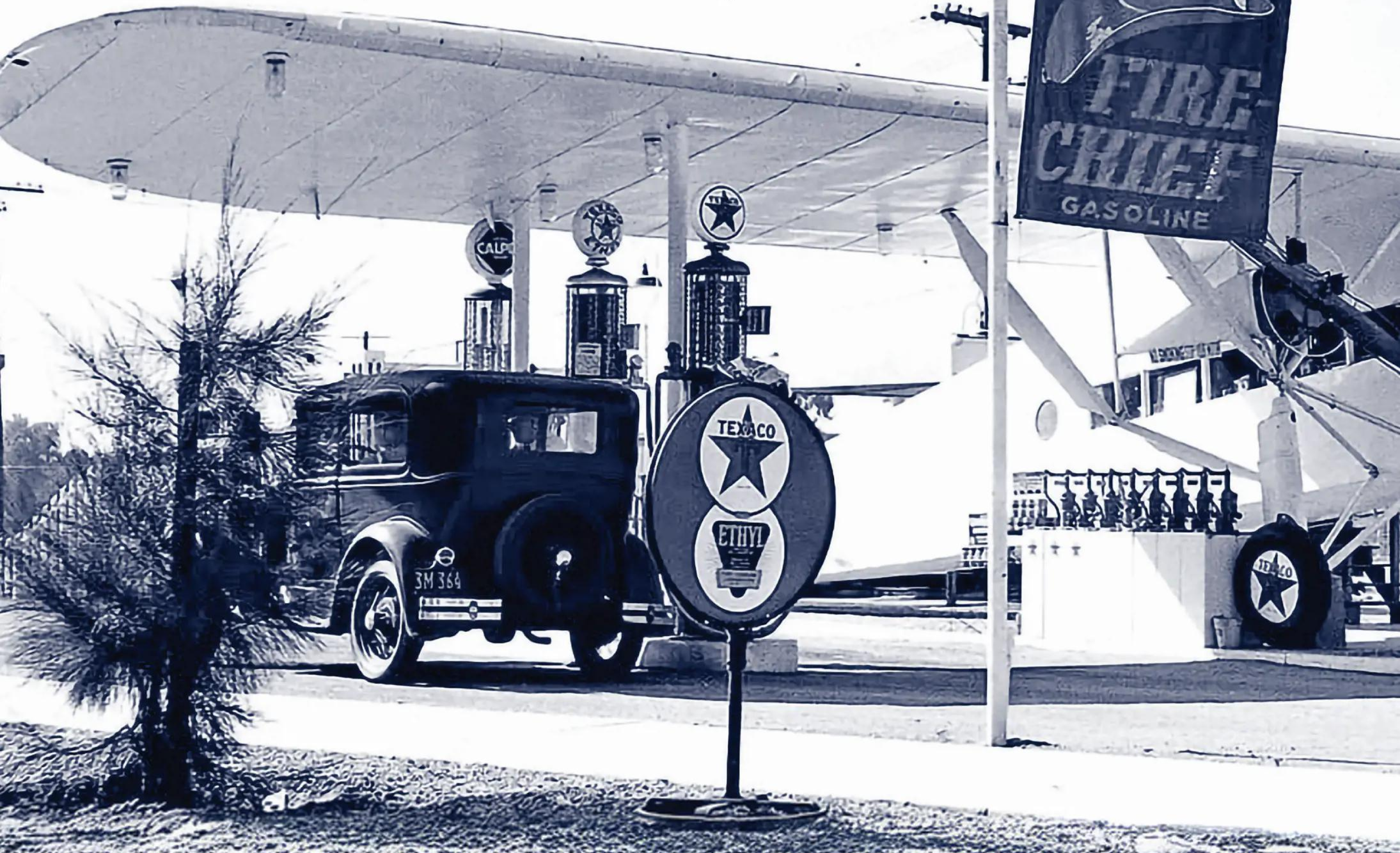
During the 1950s as America took to the new interstate system of highways, postcards became extremely popular. Travelers could buy a card for a few pennies and send it off with a note to show others where they were or what they were seeing. This postcard illustrates a surplus Bamboo Bomber perched atop the Stop Again Service in Texarkana, Texas. For the postcard, the T-50/UC-78 is painted red and white with the registration NC53198. Now, we don't know about the giant jackrabbit with a saddle that is off to the right but presumably this is another form of roadside attraction!

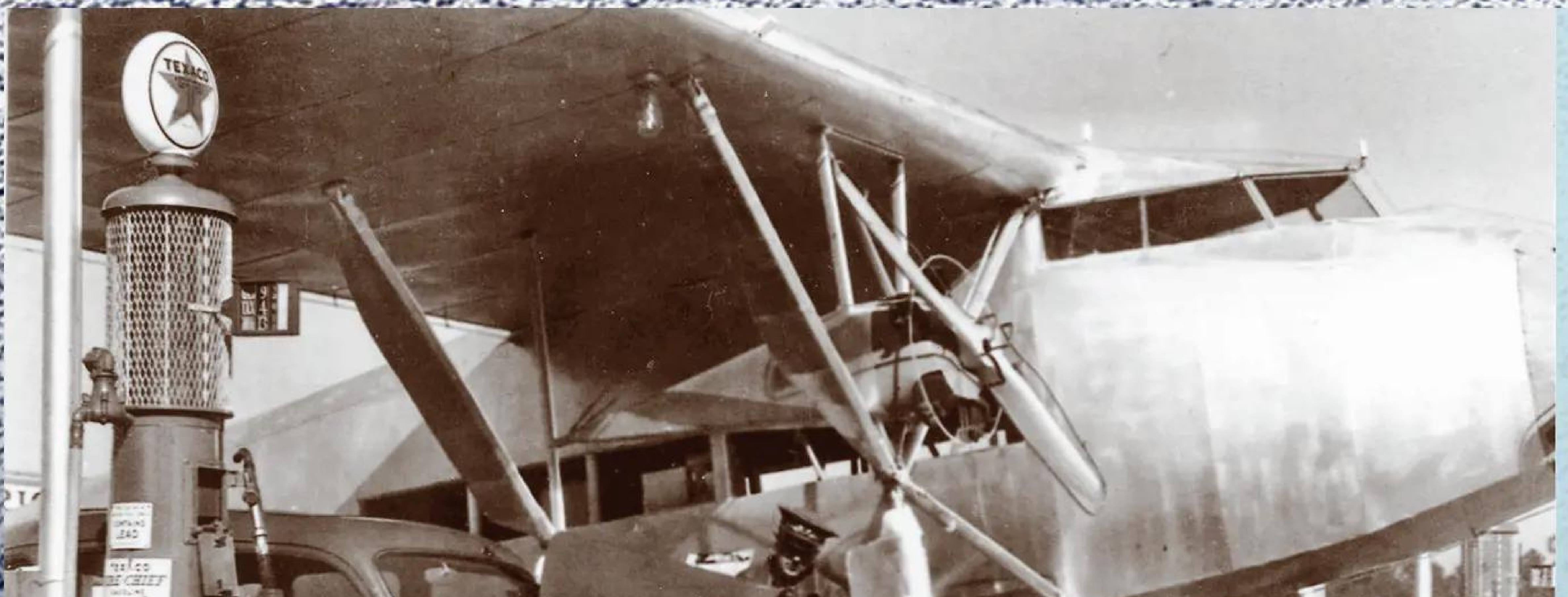


flight testing, the plane was flown to the War Assets Administration's storage facility at Bush Field in Augusta, Georgia, and that location would become home for the majority of the survivors. On 6 July 1945, 14 of the aircraft were sold to the National Skyways Freight Corporation (NFSC) including NC41810. The plane was prepared for a ferry flight to California but it is noted as having "crash-landed" in Fort Worth. We have not been able to find details of the accident. The airframe was stripped of engines, props, flight controls, and other components that could be utilized by NSFC and the remains were offered for sale. The airframe was sold for $400, hauled off, and turned into a very crude Mobil gas station. What happened to the plane after that is not known and we welcome further information.



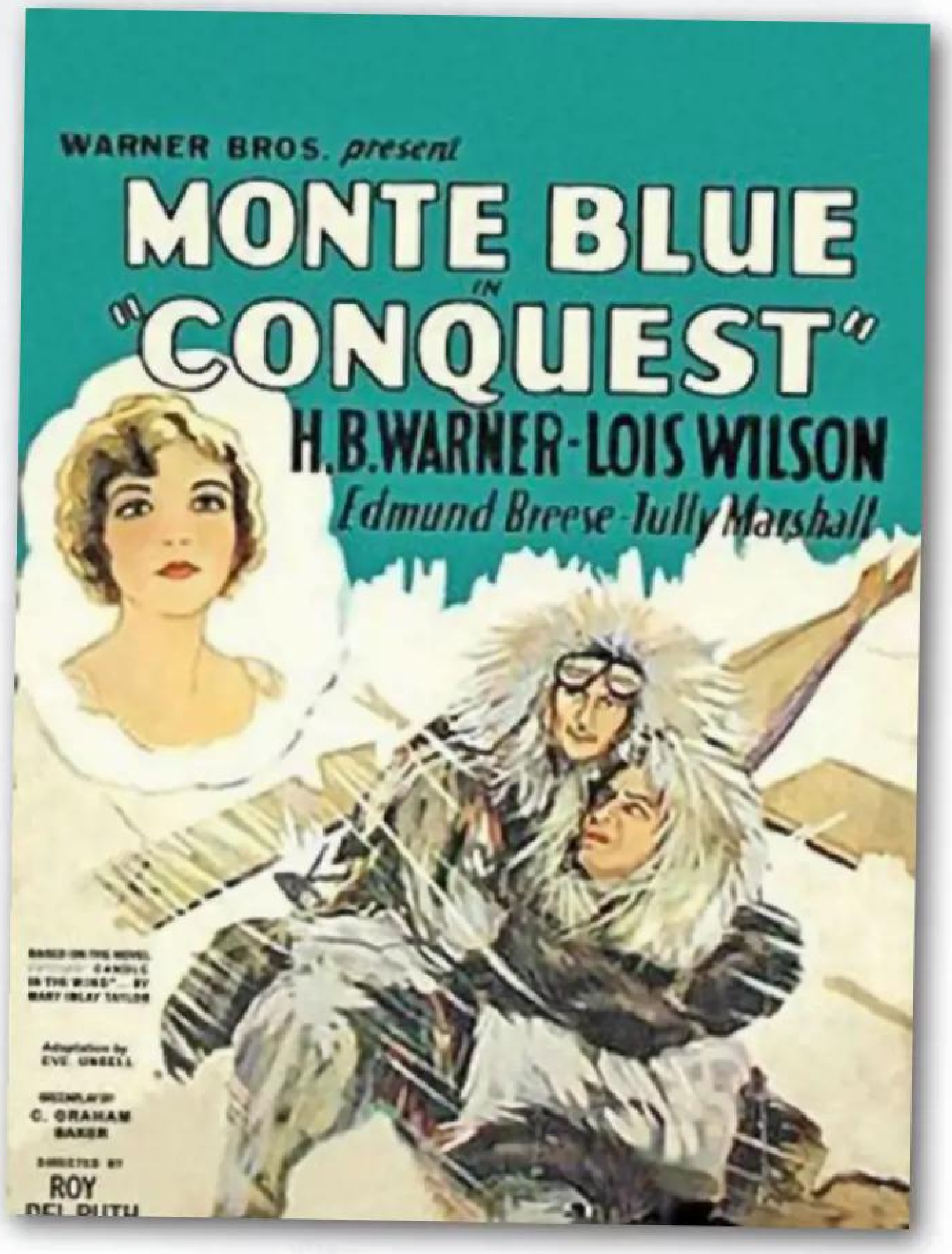
With its flying (and Hollywood) days over, the Albatross became surplus to needs. There was no further use for the design and it was apparently put up for sale. The aircraft was moved to Studio City, California, and placed on a Ventura Boulevard lot near Republic Studios. Named the *Royal Albatross*, the Z-12 was extensively modified to become a Texaco station. The engines were removed and replaced with fakes that were very small. They were also trimmed with neon tubing.

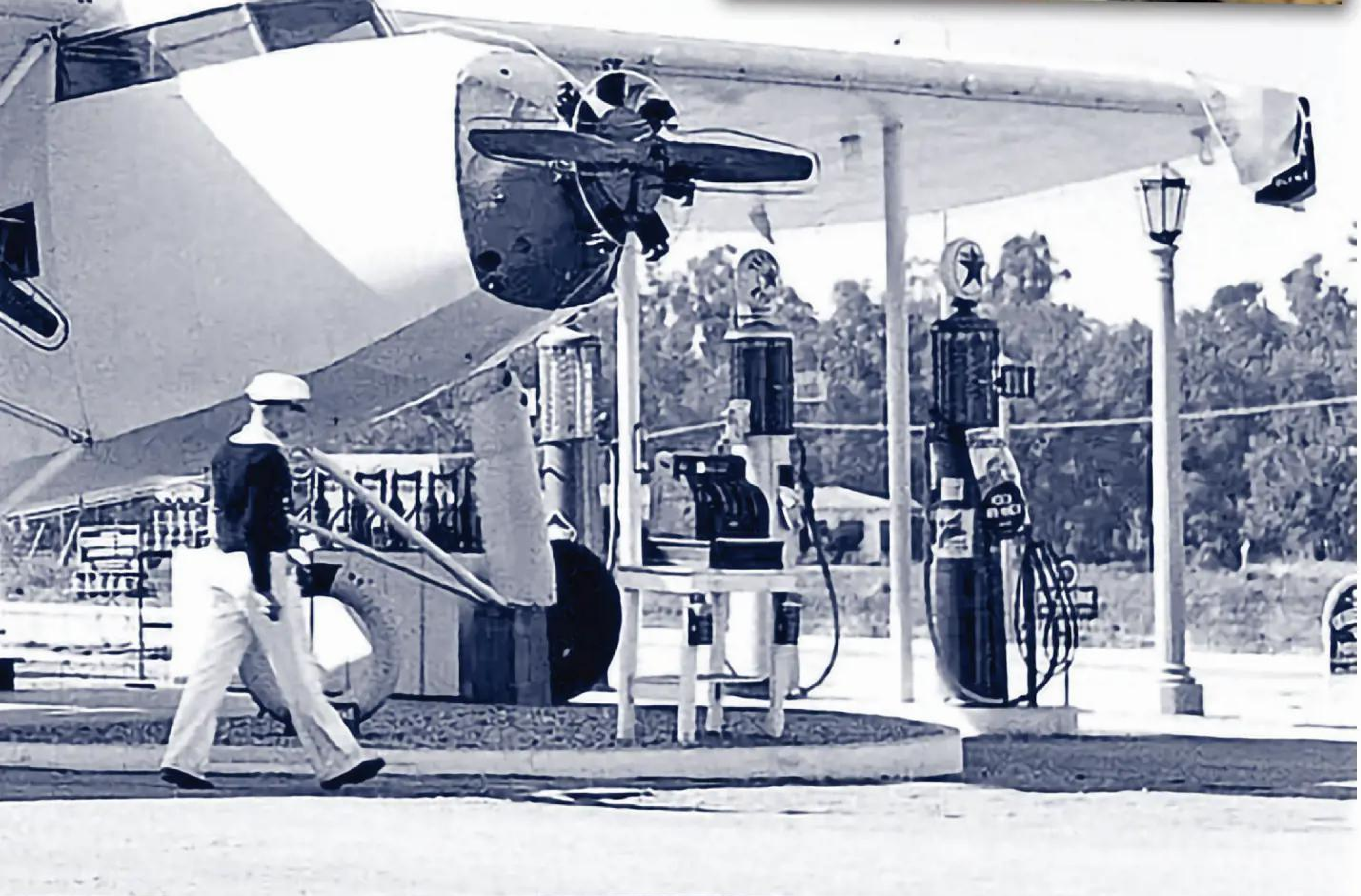




While airworthy, the Albatross carried the registration NX3622. By the time it was used in the film, it was probably no longer flyable and it appears the windscreen area was cut away to allow cameras to film the actors. As can be seen, the cockpit area appears to be crudely reconstructed. The outboard wing struts were cut up and reinstalled in much shorter units that had steeper angles to allow cars to move under the wing for access to the pumps. Also, the fuselage received sheet metal covering. We have no idea how long the *Royal Albatross* was used as a Texaco station and one report states the plane may have been moved to the Glendale area to continue its filling station service. The Albatross was probably scrapped by the mid- to late-1930s. Another way you can tell times have changed is by the fact that the cash register was unprotected in the open under the nose of the plane!

The Albatross appeared in a 1929 Hollywood film titled *Conquest* and was apparently modified to look like a Fokker tri-motor. We say apparently, because this is a "lost" film and a copy is not known to exist but this poster still survives.





Never hear of the Zenith Z-12 Albatross tri-motor? Well, don't be embarrassed by a lack of knowledge because few people know of this strange 1927 creation. Located in the soy bean fields of Santa Ana, California, the Zenith Aircraft Company built the Z-12 to carry eleven passengers. For whatever reason, the designers decided to go with absolutely minimal power for what was described at the time as "the largest aircraft on the West Coast." Initially, the plane was fitted with three Siemens-Halske 125-hp radials so the Albatross had to be built as light as possible. Also, the design was relatively streamlined for the time. The tri-motor lifted into the air during January 1930 (some sources say the event took place on the 2nd, others state the 9th) for its first flight. Apparently, the craft was to undertake coast-to-coast airline flights but with the light construction and low wing loading, passengers would be battered by any sort of turbulence. At some point, the decision was made to replace the engines with radials of even less power. Three Axelson A-7Rs of just 115-hp each were fitted. With Lindbergh fever gripping America, someone thought the Z-12 would be just the ticket for a world endurance flight. The fuselage was fitted with tanks holding 900-gallons while the wings had two tanks each holding 400-gallons of aviation fuel to give a calculated range of 6700-miles at a cruising speed of 95-mph. There was also a 200-gallon oil tank. The plane was painted up with Richfield Oil markings on its 90-ft wing, flown to the barren wasteland of Imperial Valley, and prepared for its record flight. After one hour in the air, a fuselage tank split and began pouring out fuel so the plane quickly returned for landing. A second attempt recorded 27-hrs 14-mins when one of the engines overheated (they had been running at full throttle). A third attempt saw 9-hrs 45-mins aloft but a rocker arm failure on an engine ended the attempt and there were no more. However, the Albatross proved it could lift 2.47 times its own weight. The plane was taken over by another company and named the Schofield Albatross and fitted with Western Enterprise Engines L-7 radials of 150-hp each. A planned Pacific flight did not happen and a new future, as can be seen in this photo, was in store for the Albatross.

find, it appears that this prototype RB-1 had departed from the storage facility at Bush Field in Augusta, Georgia, where the majority of surviving Conestogas was parked and headed out on a ferry flight to its new home in California when something went wrong over Texas. The plane is noted as having made a "crash-landing" at Fort Worth, Texas, but in our surviving photo it appears that damage is minimal. Again, we have not been able to find if this event took place at an airport or in a handy farm field. Sensing a business opportunity, the gas station owner purchased the engineless hulk and moved it to his rather primitive facility where the broad stainless-steel wings served as a cover for the gas pumps. The back ramp for the plane was lowered and customers could drive their auto directly into the Budd for things like oil changes and minor repairs. How long did the RB-1 remain in place and what finally happened to the aircraft? Hopefully, these are answers that an *Air Classics* reader will be able to provide.

By the 1980s, numerous individuals began studying roadside architecture and were putting particular stress on the creation of structures that advertised the product being sold — coffee shops, as an example, being placed inside structures that looked like a giant coffee pot. Juice stands placed inside brightly-painted giant oranges, and so forth. I even have a childhood memory of California's long Highway 99 being lined with such giant oranges and how they offered a temporary oasis for the thirsty traveler in those days before auto air conditioning was common.

As mentioned in Part One, this type of architecture was originally called "novelty" but as the study of roadside America became more serious, the terms "programmatic" and "mimetic" were applied to the structures and attractions. Today, most of these displays are long gone but we can remember this unique slice of American history via photos, postcards, and video clips. We certainly welcome hearing from readers that might have more images or memories of that time when aviation formed a direct part of our roadside history. **AC**

ONE WAR, THREE AIR FORCES

FROM 1939 TO 1943, WHEN HE WAS SHOT DOWN AND TAKEN PRISONER, AUBREY STANHOPE SERVED AS A PILOT FOR FRANCE, GREAT BRITAIN, AND THE UNITED STATES

BY STEVE BLAKE

Muriel Stanhope watches as Stan and his wingman takeoff from Debden on a bomber escort mission.

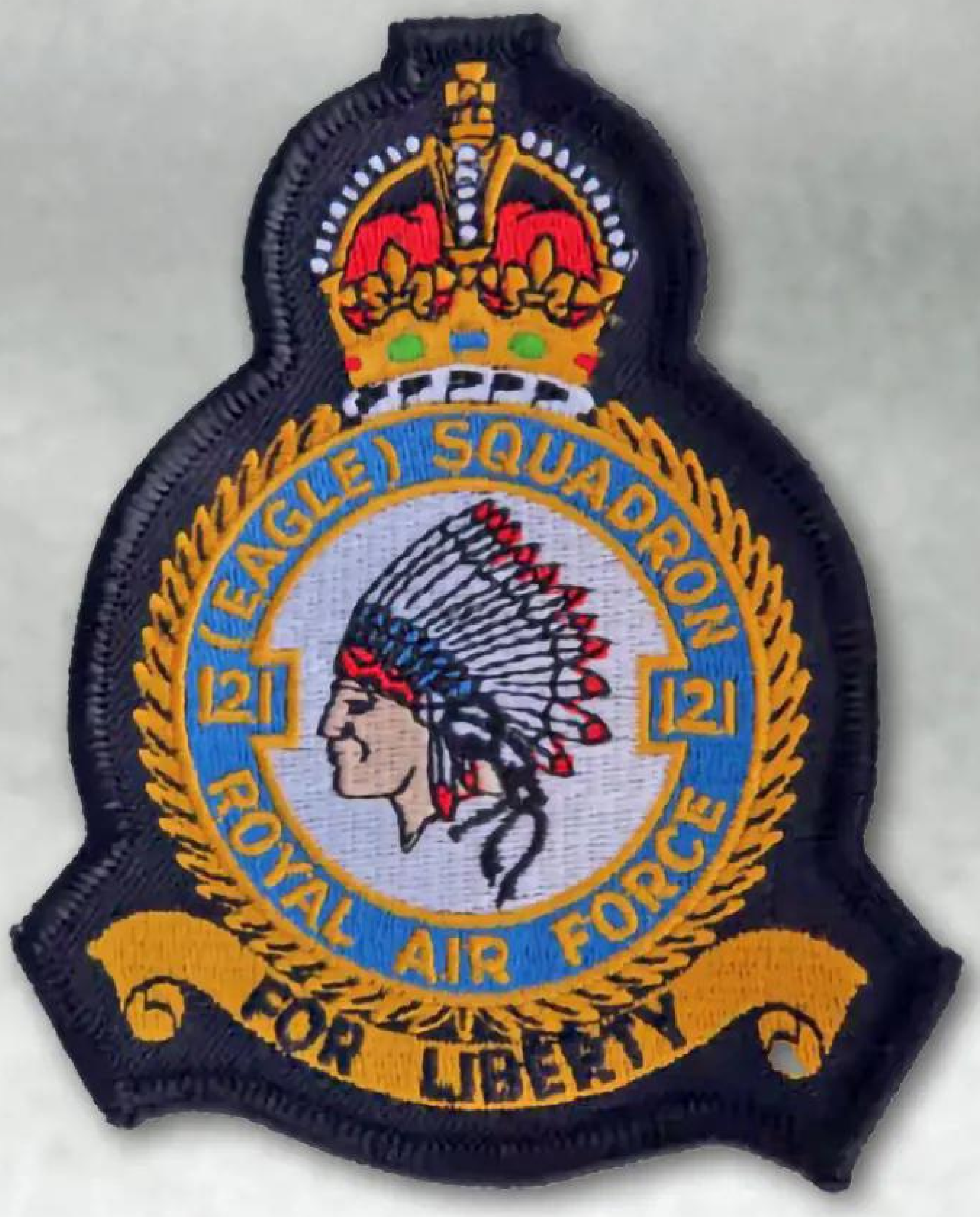
During the early days of the Second World War, before the US was forced into that global conflict in December 1941, hundreds of young American men joined the Royal Air Force (RAF) and the Royal Canadian Air Force (RCAF) to become military pilots and aircrew, despite their country's supposed neutrality and, in most cases, without forfeiting their US citizenship. By the summer of 1940, there were enough American fighter pilots in the RAF to create a their own squadron. This was No. 71 Squadron, which was formed on 8 August 1940 and became operational in March 1941. Two more American RAF fighter squadrons were formed later in 1941 — No. 121 (May) and No. 133 (August). Initially, most of their leadership positions (flight and squadron leaders) were held by experienced British pilots, until more of the Americans gained the requisite experience. For publicity and propaganda purposes, they were called "Eagle Squadrons" after America's well-known avian patriotic symbol.

All three squadrons served with distinction for the next year, scoring a total of 74.5 confirmed aerial victories and probably destroying and damaging many more *Luftwaffe* aircraft, but suffered heavy casualties (77 American pilots died as Eagles). They all flew Hawker Hurricanes at first, but scored most of their victories after re-equipping with the Supermarine Spitfire. It should be noted that just 244 of the many hundreds of volunteer "Yank" pilots in the RAF and RCAF served with an Eagle Squadron.

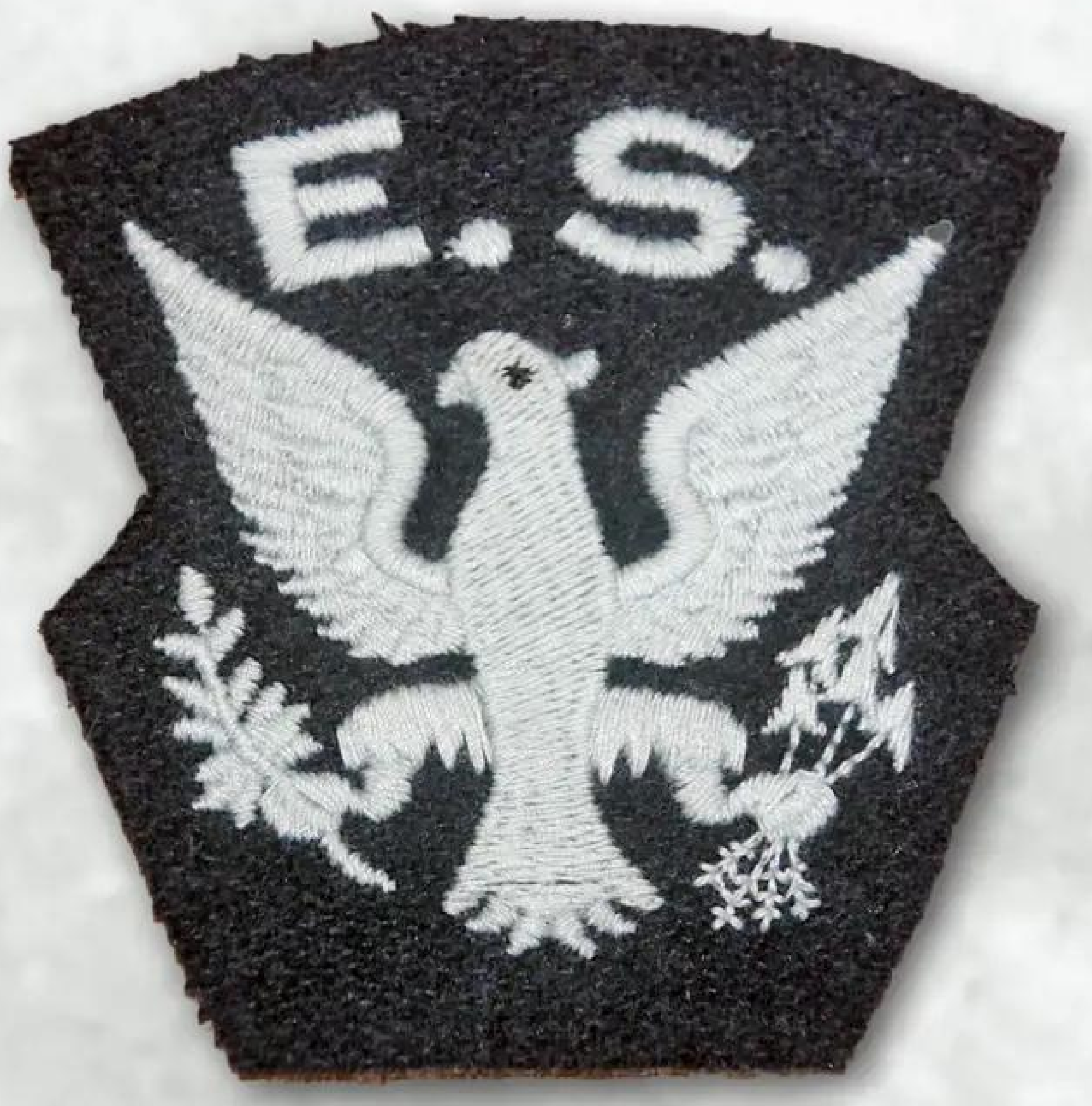
After America entered the war, most of the volunteers wanted to transfer to one of its military air services, mainly the US Army Air Force (USAAF). By the summer of 1942, a process had been agreed upon by which those men could make the transfer relatively easily — although many of them chose *not* to transfer. The three Eagle Squadrons were a different story, however, as it was decided that they, their aircraft, *and* their pilots would be transferred directly to the USAAF's new 8th Air Force in England, providing it with an experienced fighter group.

The new 4th Fighter Group (FG) and its three squadrons — the 334th, 335th, and 336th — were constituted on 22 August 1942 at Bushey Hall in Hertfordshire, a few miles northwest of London, which was the home of VIII Fighter Command (FC), and activated there on 12 September. They were formerly Nos. 71, 121, and 133 Squadrons RAF, respectively. They had all occupied their actual new home airfield, Debden (USAAF Station 356), in southeastern England's Essex County, to begin combat operations by 29 September, on which date a formal ceremony was held at Debden during which the Eagle Squadrons were officially transferred to the USAAF. The new group flew its first combat mission — a fighter sweep from Calais to Dunkirk, France — and scored its first three air victories on 2 October.

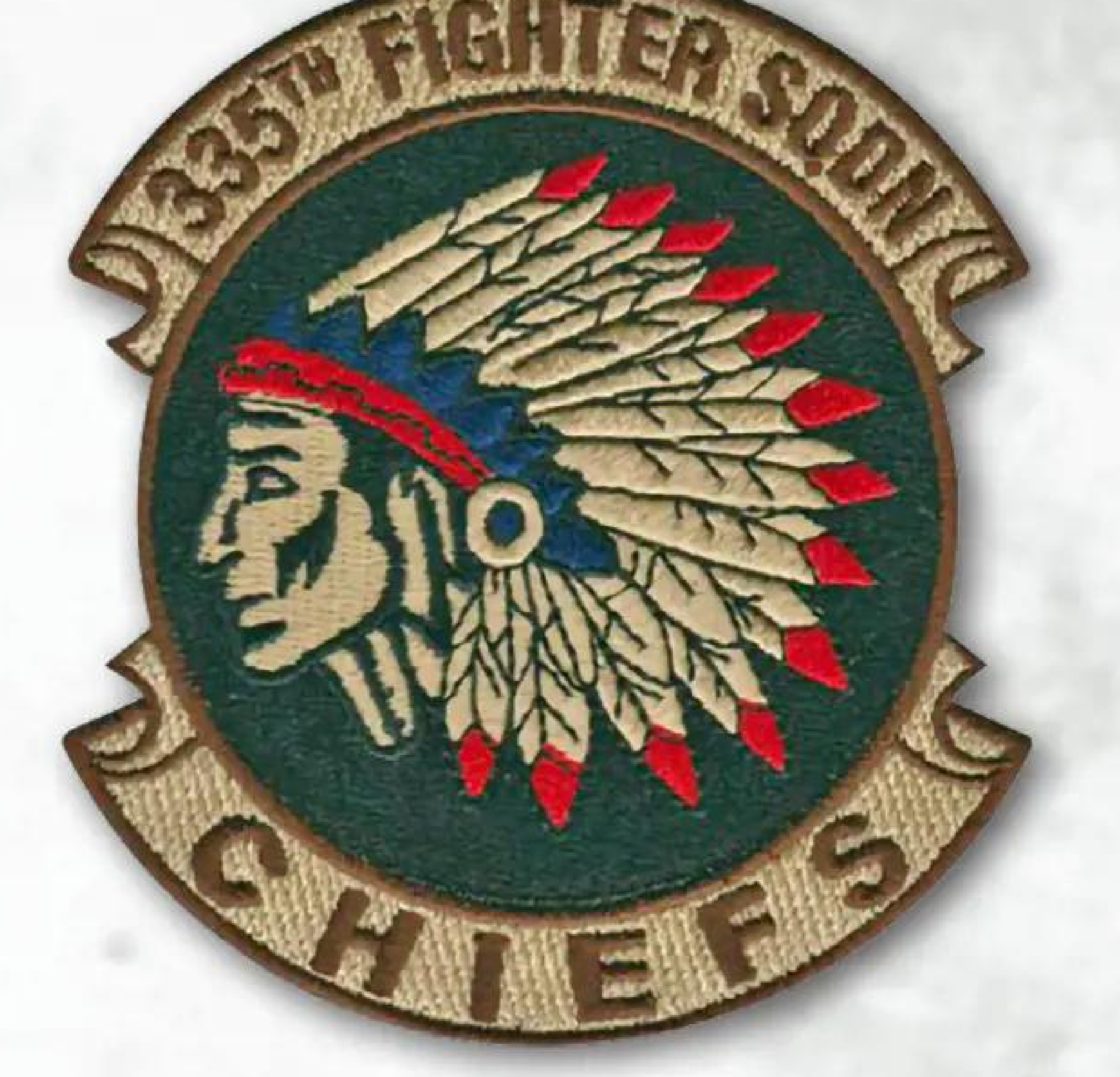
Although the former Eagle Squadron pilots were now wearing their new USAAF uniforms and their Spitfires displayed the US aircraft insignia, a white star over a circular blue field, instead of British roundels, their missions mostly remained the same, including low-level fighter sweeps/strafing ("Rhubarbs"), attacks on enemy shipping and ports ("Roadsteads"), and bomber escorts ("Circuses" and "Rode-



Patch for No. 121 Squadron Royal Air Force.



Sleeve patch for the Eagle Squadron.



Flight jacket patch for the 335th Fighter Squadron.

At first, the pilots of the Eagle Squadrons were apprehensive about giving up their nimble Spitfire Mk. Vs in favor on the huge Thunderbolt but the P-47 would prove to be a superior aircraft on almost all accounts.

USAAF portrait of Aubrey Stanhope. Note the Eagle Squadron insignia.

Pilots from the 4th FG listen to a pre-mission briefing. In the center, looking directly at the camera, is James A. Goodson. Other pilots include James A. Clark, Spiros S. Pisanos, Kenneth D. Peterson, Jack L. Raphael, Earle W. Carlow, Vernon A. Boehle, Douglas E. Booth, Aubrey Stanhope, Pierce L. Wiggin, Frank M. Fink, Donald H. Ross, Cecil E. Manning, Richard /G. Braley, Nicholas "Cowboy" Megura, Robert G. "Digger" Williams, Howard W. "Deacon" Hively, and Duane W. Beeson.

os") to German-occupied France and the Low Countries — plus many tedious ship convoy security patrols. (A Rodeo was basically a combination fighter sweep and bomber escort that utilized the bombers as bait to attract and engage enemy fighters, and in the 8th AF Circuses were also called "Ramrods.") The 4th operated with its Spitfires pretty much as an RAF Wing, which was very similar in composition to a USAAF Group.

One of those 244 Eagle Squadron pilots had a rather unusual background and found his way to the Eagles via an unusual route. Aubrey Charles Stanhope Jr. was born in the city of Nantes, near the Bay of Biscay in western France on 8 June 1920, to an American father and a French mother, Paulette Bordier du Raincey. He held dual citizenship and was bilingual. Shortly after war was declared between France and Germany in September 1939, Aubrey, barely 19-years-old, joined the French *Armée de l'Air* to be trained as a pilot. Even though we did a detailed search, we could not find much in the way of information on his French service. It seems unlikely that he would have been combat operational before France capitulated to the Nazis in June 1940 — at which time Aubrey escaped to England, along with many other French pilots. Again, details of his escape from France could not be discovered.

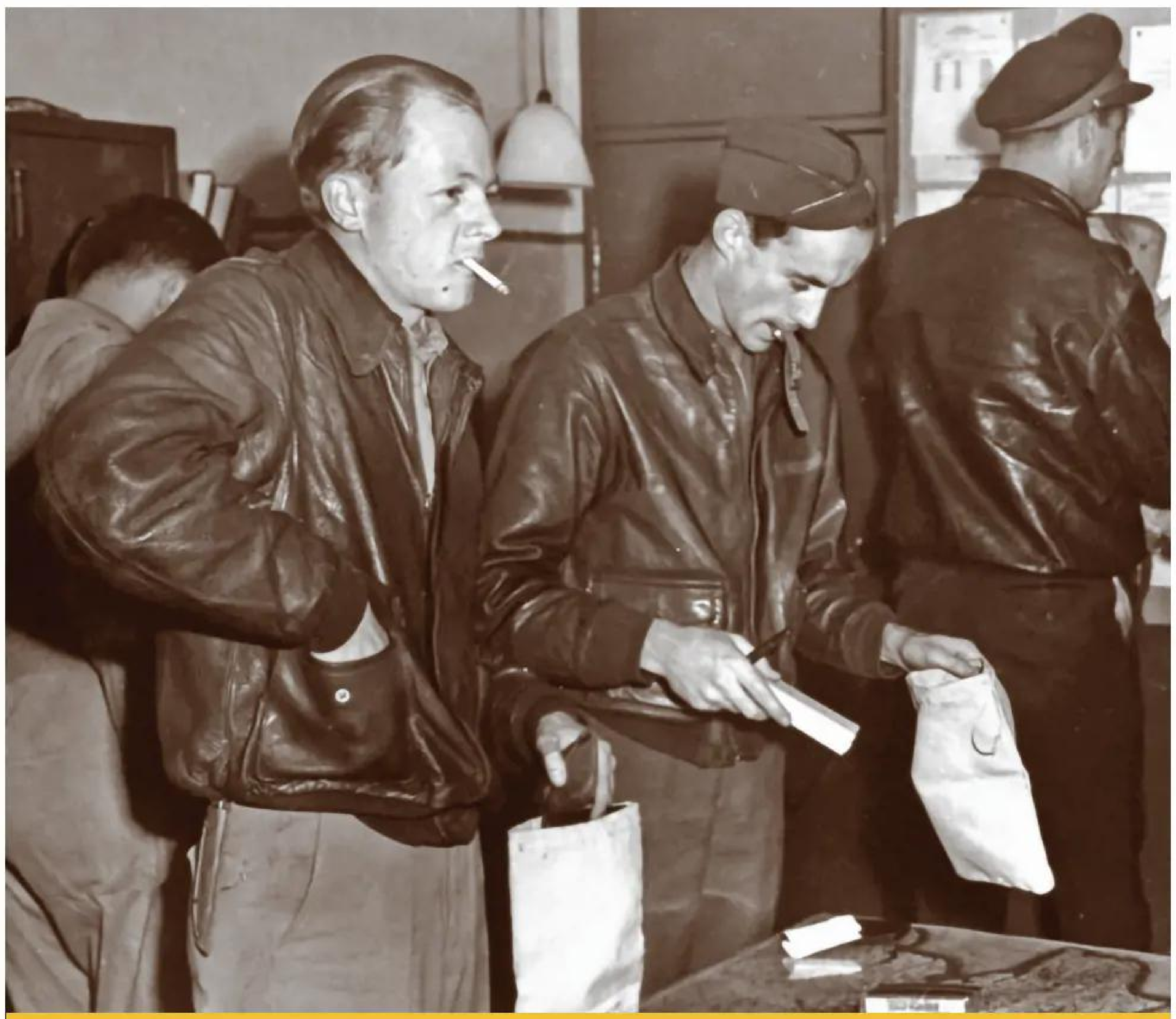
In England, Aubrey joined the RAF and was trained as a fighter pilot. He also met and fell in love with an English girl named Muriel Grace Lauther whom he married in 1941. Once his operational fighter training was completed, as an *American* sergeant pilot he was assigned to No. 121 Eagle Squadron. It isn't known exactly when, but it was sometime after the summer of 1941. On 8 July 1942, Sgt. Stanhope was flying Spitfire Mark Vb BM401 from 121's base at Southend near the English Channel, when he shared with squadron mate Pilot Officer (P/O) Gilbert O. Halsey in damaging a twin-engine Junkers Ju 88 near Cap Gris-Nez on the French side of the Channel. (Stanhope and Halsey would soon also be USAAF squadron mates.)

Orders assigning former No. 121 Squadron pilot Aubrey Stanhope to the 335th Fighter Squadron (FS) were received by it on 14 October 1942. He had become an official member of the USAAF and received his commission as a second lieutenant on 24 September. Since Aubrey had been a non-commissioned sergeant pilot in the RAF, this change meant for him a considerable increase in rank, prestige, and pay.

On 28 October, the 335th FS went on detached service to Martlesham Heath in Suffolk County, just north of Essex, for "air firing practice" and then moved temporarily to Great Samford, a satellite airfield three miles east of Debden. The unit finally returned to Debden on 1 December.

Numerous USAAF combat units from the States joined the 8th AF in England during 1942, but most of them had departed for North Africa by the end of that year to become part of the new 12th AF. The 8th was gradually rebuilding during the winter of 1942-43, with new, perma-

Stanhope after returning from a Thunderbolt mission.



Before each mission, Stanhope and the other pilots had to unload all their personal items into envelopes that would be picked up on return.

nent, units — both fighter and long-range Boeing B-17 Flying Fortress and Consolidated B-24 Liberator bomber groups — from the US.

The American bombers soon began attacking targets in Germany itself, which were beyond the range of their escort fighters, 4th FG and RAF Spitfires (the first was the city of Emden, on 27 January 1943). The USAAF's prevailing pre-war theory that tight formations of heavily-armed bombers could protect themselves adequately against intercepting enemy fighters was effectively debunked by the *Luftwaffe's* courageous and determined pilots, and bomber losses remained extremely high until the 8th AF's fighter pilots (now flying Lockheed P-38 Lightnings, Republic P-47 Thunderbolts, and North American P-51 Mustangs) were finally able to escort the B-17s and B-24s all the way to even their most distant targets and back by the spring of 1944. The three long-range P-38 groups that had briefly been part of the 8th in 1942 had moved on to North Africa, but a new fighter, untried in combat, was about to fill the gap: the aforementioned Thunderbolt, the first 200 of which, P-47C models, arrived in England by ship on 24 December 1942. It would soon replace the 4th FG's Spitfires and also equip VIII FC's two new fighter groups, the 56th and 78th — and then more groups during the coming year.

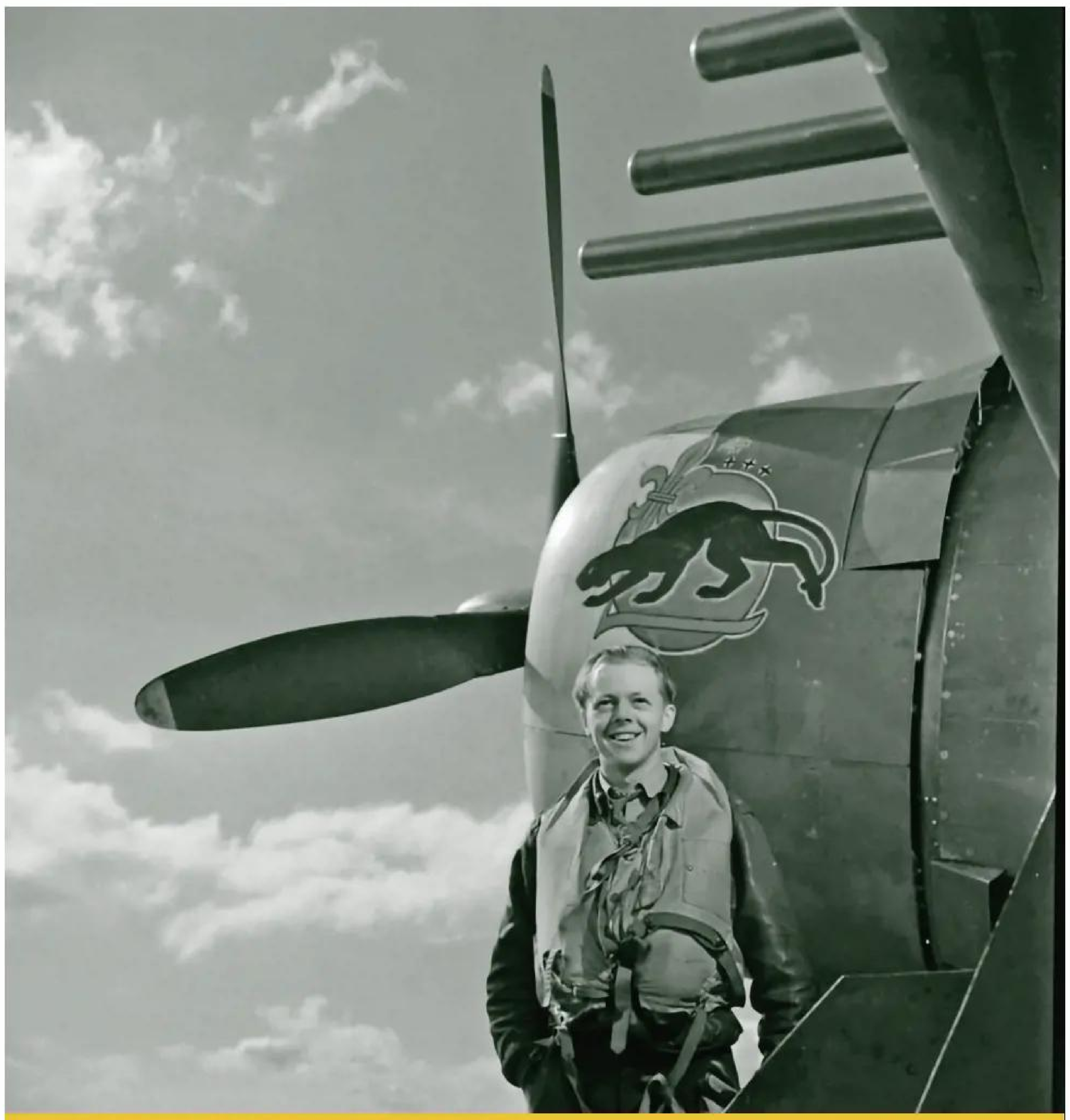
The P-47 was pretty much the antithesis of the much smaller and nimbler Spitfire, which fact was not lost on the 4th FG's pilots. Its earlier models would have had difficulty dogfighting with the Spitfire — or the *Luftwaffe's* Bf 109 and Fw 190 — at lower altitudes and speeds. The Thunderbolt was at that time the largest and heaviest operational single-engine fighter ever. The P-47C weighed in at over 12,000 pounds and was powered by a Pratt & Whitney R-2800 radial that produced 2000 horsepower and a top speed at altitude (around 30,000 feet, where it would be operating on its bomber escort missions) of about 430 mph. Its armament of four .50-caliber Browning M2 machine guns in each wing packed an extremely powerful punch. Even more importantly when it came to its primary function, long-range bomber escort, the P-47C had a range of around 450 miles compared to the Spitfire's 250 miles.

The first P-47s received by the 4th FG on 15 January 194, went to the 334th FS, which then transferred all of its Spitfires to the other two squadrons. On the following day, some of its pilots were temporarily exchanged for some of the 335th's and 336th's, including 2nd Lt. Stanhope, who was called "Stan" by his squadron mates. They were TDY (on temporary duty) with the 334th for the next two months and would finally return to their own squadrons on 17 March. The purpose of all this was that the 334th was to be the P-47 training squadron for the whole group.

On 17 January, two-dozen 334th FS pilots, again including Stan, were sent to the new P-47 operational training squadron at Atcham (USAAF Station 342) located near Shrewsbury in Shropshire, nearly 150 miles northwest of London. Once these pilots had been trained to fly their Thunderbolt there, they would return to Debden and train the other pilots in their squadrons. (Interestingly, an entry in the 335th FS history dated 7 February 1943 states that "flyers are definitely against the P-47.") This allowed Spitfire operations to continue as the transition was completed. While at Atcham, Stan was promoted to first lieutenant effective 28 January.

On 4 March, Lt. Stanhope, flying P-47C-2-RE USAAF 41-6238, undershot Debden's runway while landing there and his gear hit the soft, muddy ground hard — and collapsed. He ended up skidding along the runway on the aircraft's belly, seriously damaging the Thunderbolt. It was sent to the Burtonwood Air Depot near Liverpool for repair, after which it was flown back to Debden by a ferry pilot on 27 March and then briefly reassigned to the 336th FS' Lt. Don S. Gentile, who later

Flight jacket patch for the 4th Fighter Group.



Aubrey Stanhope with his P-47D showing the large personal insignia applied to the cowl.

Stanhope cycles out to his Thunderbolt.

became the 4th FG's top ace. On 28 July, 41-6238 was shot down over Belgium by an enemy fighter and its pilot, the 336th Squadron's 1st Lt. Henry L. Ayres Jr., bailed out of it and was captured.

Eleven 334th FS pilots, including the still TDY Lt. Stanhope, flew the Group's first P-47 mission, an uneventful fighter sweep to Belgium, on 10 March. It was also the *first* Thunderbolt combat mission ever. Unfortunately, a serious problem arose during the flight as the R-2800s' electrical systems caused the planes' radios to "go berserk." The next offensive P-47 mission would be delayed for a month until the problem was solved (by replacing their original American-made radios with British models), although there were a few inconclusive scrambles on airdrome defense to attempt interceptions of aerial intruders.

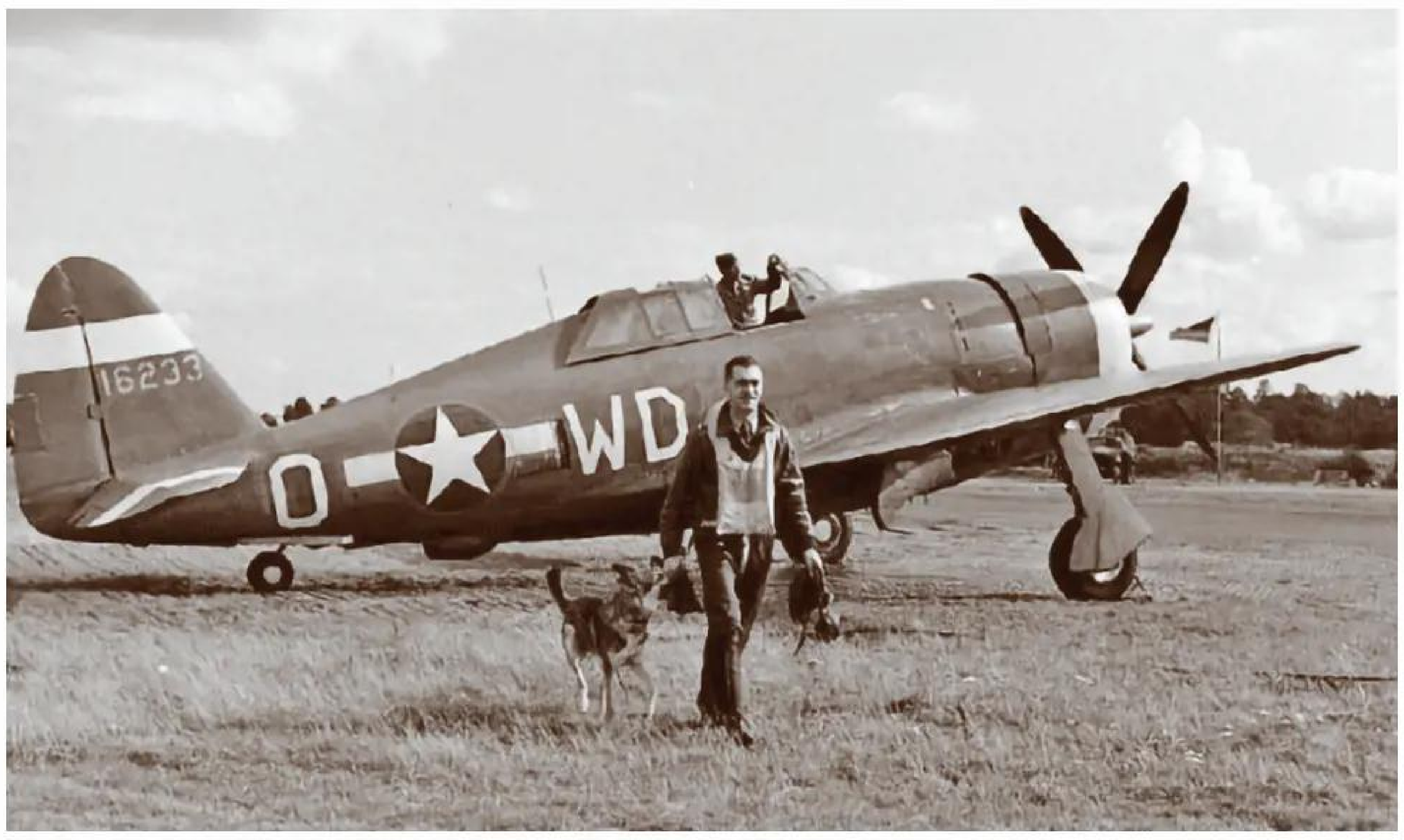
As of 12 March 1943, the 335th FS had four P-47s on hand. Six days later, it flew its first official P-47 mission, one of the aforementioned scrambles. It received six more Thunderbolts from Burtonwood on the 23rd of that month for a then-total of 18, but they were still not fully operational due to the technical problems that had to be resolved before they could start flying actual combat missions. Now back with the 335th, Stan was assigned to teach two of his squadron mates to fly the P-47. As indicated earlier, the 4th FG's Spitfire pilots were initially not at all keen on flying the much larger and heavier — and less maneuverable — Thunderbolt.

The Group now concentrated on training the rest of its pilots to fly the P-47 operationally. By 25 March, after most of them had actually flown it, the pilots' opinion seems to have changed dramatically. According to the 335th's history: "The Thunderbolts are a great improvement over the Spit VB that the Squadron had. The outstanding difference is its speed and ability to hold speed."

On 28 March, Lt. Stanhope was one of the pilots who flew some P-47s to Burtonwood for "radio modification." On 3 April, the Group's squadrons received new 8th AF code letters for the fuselages of their Thunderbolts. The 335th's were WD (its Spitfires had retained No. 121 Squadron's RAF code, AV). Until then, the 4th's P-47s had been temporarily identified by painting the last two digits of their serial numbers on either side of their fuselages. That same day, the 335th's historian noted: "Still having an awful lot of trouble with these Thunderbolts. God only knows when they'll become operational."

Happily, it was very soon as all three squadrons finally flew the second offensive P-47 mission, a fighter sweep to St. Omer, France, on 8 April along with the 56th and 78th FGs. Two 335th FS pilots flew the Group's last Spitfire mission, a convoy patrol, two days later. On 15 April, during a fighter sweep over Belgium, the 4th FG scored its — and the USAAF's — very first P-47 aerial victories. The 335th FS' CO, Maj. Donald J. M. Blakeslee, shot down the first of the three Fw 190s destroyed that

On a foggy British morning, 335th FS pilots are driven to their Thunderbolts. Stanhope's aircraft is on the right.



Howard Lively and his pet dog walk away from Stanhope's assigned Thunderbolt.

day, making him the first pilot to score a kill with the Thunderbolt.

During an awards ceremony at Debden on 21 April, Lt. Stanhope received the two Air Medals he had earned. On 4 May, the 8th AF's three Thunderbolt groups flew their first heavy bomber (B-17) escort, to Antwerp, Belgium.

Stan scored in the air for the first time with the 4th FG during a Ramrod in support of some B-17s that once again attacked Antwerp on 14 May. Numerous Fw 190s were spotted near Hulst, a few miles northwest of the target, and were bounced by the 335th and 336th FSs as the 334th covered them. The results were credits for two enemy aircraft (e/a) destroyed, two probably destroyed, and four damaged. The confirmed kills were by the 335th's Maj. Blakeslee and Lt. Stanhope, who was flying P-47D-2-RE 42-7968/WD*U. (The first of the new P-47Ds had arrived in England the previous month.)

The 336th's Capt. LeRoy Gover was attacked by one of the Focke-Wulfs, whereupon he "broke away and started to rejoin the squadron. The Fw 190 that was chasing me was a little too eager and didn't look behind him. Lieutenant Stanhope shot him down."

Two days later, Maj. Blakeslee led the whole Group on a Rodeo to Belgium. Fifteen Fw 190s were spotted near the North Sea coast over Knokke, but the ensuing actions were rather inconclusive, resulting in just one probable (probably destroyed) and two damaged credits — one of the latter going to Lt. Stanhope, who was a section (flight) leader, flying P-47C-5-RE 41-6369/WD*Y. According to the 335th Squadron history:

"Lieutenant Stanhope, flying at 31,000 feet, saw two 190s. Going down, attacking as he went, he fired with deflection and saw strikes on tail plane and fuselage. Jerry went into a spin, then recovered, then went into another spin. Lt. Stanhope headed for home and claims one FW 190 damaged."

The 4th FG's mission for 30 July was a Circus (withdrawal support for some B-17s) to Haldern, just across the Dutch border in western Germany. This was its second utilizing the new 200-gallon paper belly (auxiliary fuel) tanks the Group had first used on the 28 July mission, which was also the very first incursion into Germany by Allied day fighters — and during which its pilots scored nine confirmed victories. The auxiliary tanks would now allow the 8th AF's P-47 pilots to accompany the bombers much farther into the German *Reich* than had previously been possible. The 335th's historian described what happened on the 30 July mission:

While the intelligence officer carefully takes notes, Stanhope describes a mission from which he had just returned.

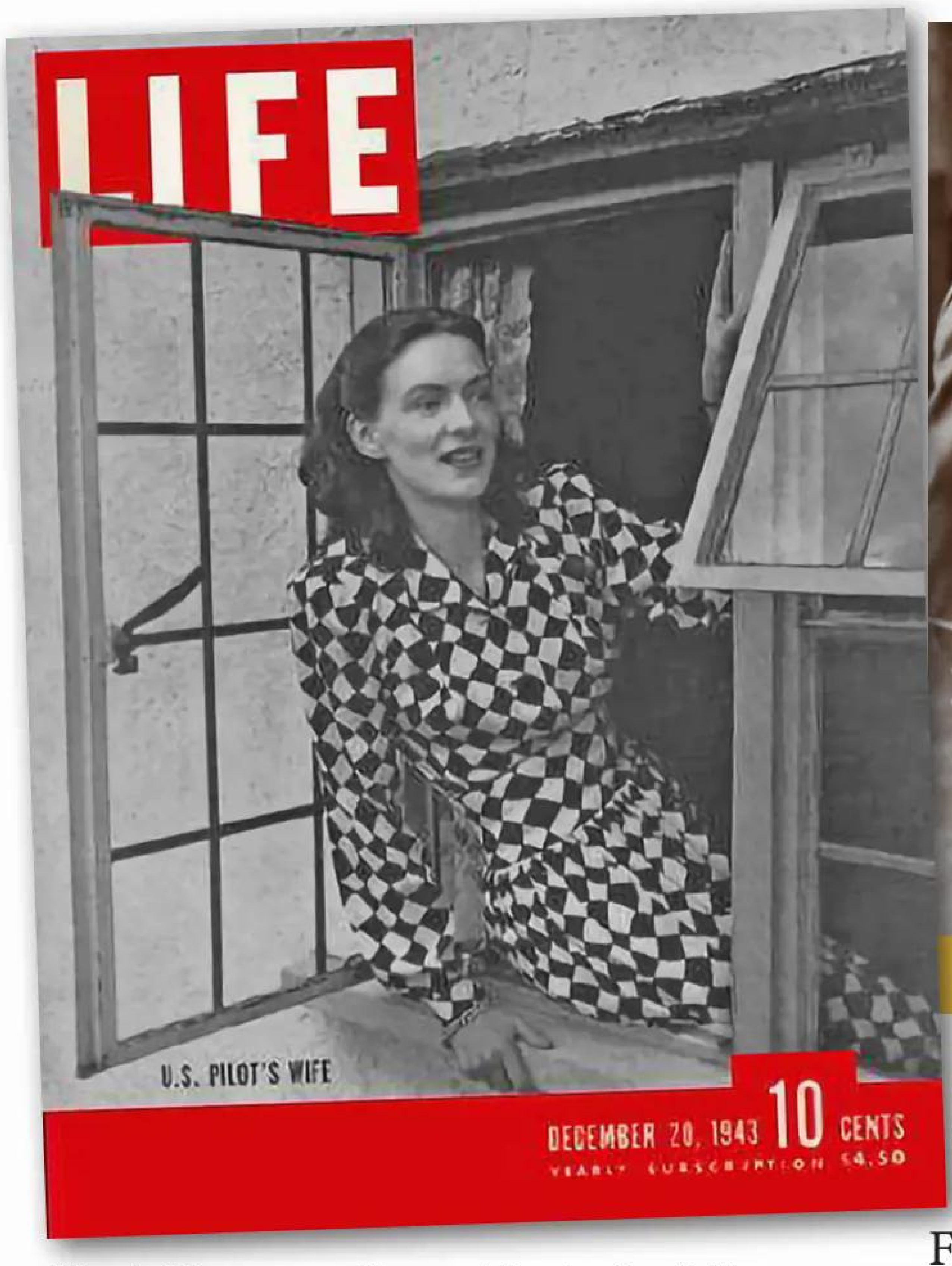
"As our group passed over Groesbeek [Holland], two groups of bombers were sighted, about 85 in number. Our [group] leader dispatched 335 to cover them. Our squadron turned to port and came in above and behind the bombers, who were flying at 27,000 feet over the vicinity of Tiel. These bombers were being attacked by 150 to 200 enemy aircraft upon our squadron's arrival. Our boys proceeded to 'jump' the enemy aircraft as they went into the attack. They stayed with the bombers until they arrived out over the Dutch Coast."

The Squadron's results were five Fw 190s destroyed and two more damaged for the loss of one Thunderbolt and its pilot. Stanhope, who was flying his assigned P-47C-2-RE 41-6233/WD*O, was credited with one destroyed and another damaged. He described his actions in his combat report:

While flying with the 335th, Aubrey would meet and marry Muriel. She had been born in Canada but her parents moved to Britain when she was a youngster. The couple rented a house near Debden and she would often cycle to the airfield to watch him takeoff and return from missions.

"I was flying Green 3 with the bombers when I dove to attack a Fw 190 about 5000 feet below me. I got in a one-second burst at 65° deflection when I followed him in a left turn. He did a half roll and dove away but I didn't want to go that low, so climbed away and up to my original level. I did not see any hits.

"When I came up, I saw three a/c [aircraft] flying in vic formation and thinking they were P-47s, I approached them. When I saw that they were Fw 190s, I immediately attacked the right one from the side and saw hits flashing on his tail and left wing. He side-slipped to the right and went down. I was too busy to watch him and don't know what happened to him. My range was about 250/300 yards.



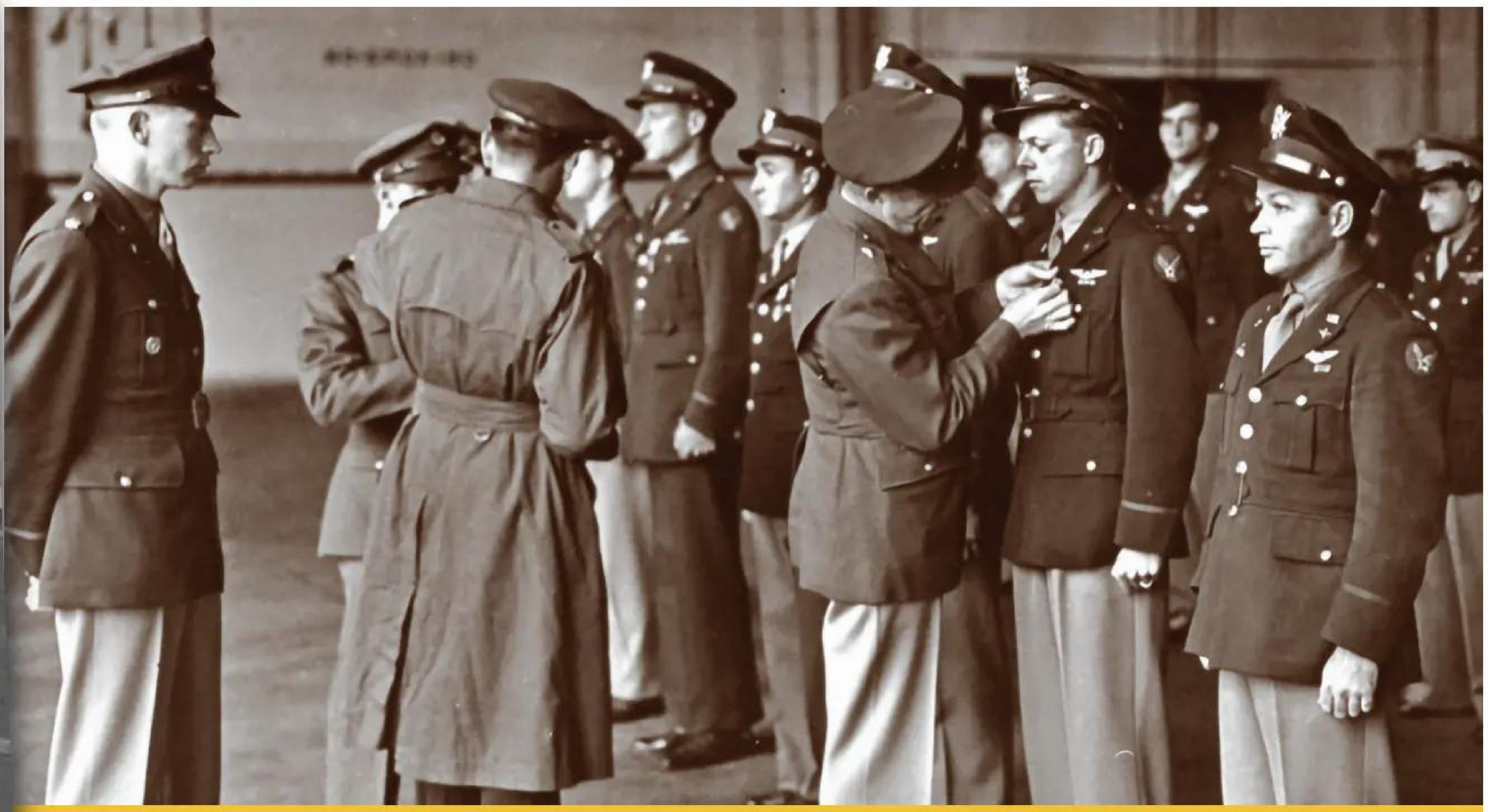
Muriel became the subject of a *Life* magazine article on British women that married American pilots. The issue was dated 20 December 1943 and Aubrey had been shot down by the time the magazine appeared in print.

"I then passed onto the tail of the a/c on the left, closed from about 250 yards to within 100 yards, firing a long burst, changing from about 15° deflection to full line astern. I saw strikes on his tail and left wing… then there was a violent explosion in his left wing where his gun was. There was a flash that looked about ten feet across, a lot of pieces flew off, and then all of his wing outboard of his gun came off clean. The plane tumbled tail over nose and spun down smoking badly. I broke away when I overshot the third plane, who had half rolled downward.

"I was then attacked by two Me 109s coming from the right. I turned into their attack and fired a burst at them both. The number-one man half rolled and dove away with the number two following him. I then came home."

The 335th's history gave the new drop tanks much of the credit for the Squadron's accomplishments on this mission:

"Our success on the July 30 show can be contributed mostly to the element of surprise, for our boys rode in on the Jerrys from the direction of Germany and were outside the usual fighter plane range. The Jerrys that did survive must have had awful red faces. Yes, the Belly Tank Brigade sure made the investment show a return."



Aubrey receiving a medal during an awards ceremony.

The first of these 200-gallon belly tanks had arrived at Debden on 16 July and were assigned to the 335th FS to test. Its pilots did so on 25 July, by dropping some of them into The Wash, a huge shallow bay on England's east coast. These bathtub-shaped tanks were actually Republic ferry tanks, which had poor aerodynamics. Fuel could not be drawn from them above 22,000 feet due to the lack of atmospheric pressure and their paper construction made them too fragile to withstand mechanical pressurization, so they had to be released at that altitude. They also started to leak a few hours after being filled, *and*, due to their problematic design, they actually carried just 100-gallons on these combat missions. They were utilized only very briefly before being replaced with much more efficient 75-gallon and 108-gallon types. According to a 4th FG history, starting on 24 August, "Two-point B-7 shackles were fitted to the planes, a squadron at a time, to permit carrying a 75-gallon tear-drop belly tank. This type let the Group fly higher, faster, and as far as they had gone with the 200-gallon tanks."

Stanhope's plane, 41-6233, had been delivered to the 334th FS on 16 January 1943, the same day he joined it temporarily. It was assigned to him, and he took it with him when he returned to the 335th. Of course, the pilots did not fly their assigned aircraft on all their missions, for various reasons.

The Group's assignment for 16 August was a Ramrod in support of some B-17s attacking *Luftwaffe* airfields in the vicinity of Paris. There was considerable, vigorous enemy opposition, but the 4th's Thunderbolt pilots prevailed, claiming 18 e/a destroyed, one probably destroyed, and six damaged (18-1-6), of which 6-0-2 were credited to the 335th FS. First Lieutenant Stanhope damaged a Bf 109 somewhere between Melun, a few miles south of Paris, and the French capital. Only one 4th FG pilot failed to return from this mission. The enemy pilots, of whom nine were killed and six wounded, belonged to *Jagdgeschwader 2*.

There was another awards ceremony at Debden on 28 August, during which Stan received a Distinguished Flying Cross and two more Air Medals. Three days later, the Group flew a Ramrod to the enemy airfield at Romilly, 70 miles east of Paris, covering the Flying Fortresses to the IP (Initial Point), where they began their bomb run on the target. Eight to ten enemy fighters attacked the P-47s over Beauvais, and then twelve to 15 more were seen assaulting some of the B-17s over Amiens. The ensuing actions were somewhat inconclusive, although a 336th FS pilot did damage two Fw 190s and Lt. Stanhope (who was flying his WD*O) another, as he subsequently reported:

"I was Green 1 [flight leader]. We were flying at 24,000 feet on our way back from Paris. About 15 miles south of Amiens we sighted a box of Forts heading north [out] and being attacked by about 20 enemy aircraft. After chasing a Fw 190 away from the Forts' tail, I climbed at 8 o'clock from them. I saw an enemy aircraft coming from the sun towards the section in front of me. I then turned into him and he turned into me. As he came out of the sun, I recognized an Fw 190. I had my sights on him and gave him a short burst [about one second] with about five-degree deflection head on, range about

The couple return home after a fighter sweep — lending an unreality to the ferocity of the war.

350 yards. Then I pushed my nose down to keep from colliding with him. I saw four flashes on his left wing and two or three on the engine. When he passed over me, he gave a big puff of black smoke as if his engine was surging and went gradually down until he was diving vertically. I watched him go straight down until he was out of sight. My No. 2, Lt. [Burton C.] Wyman, watched him go down until he went into a low cloud."

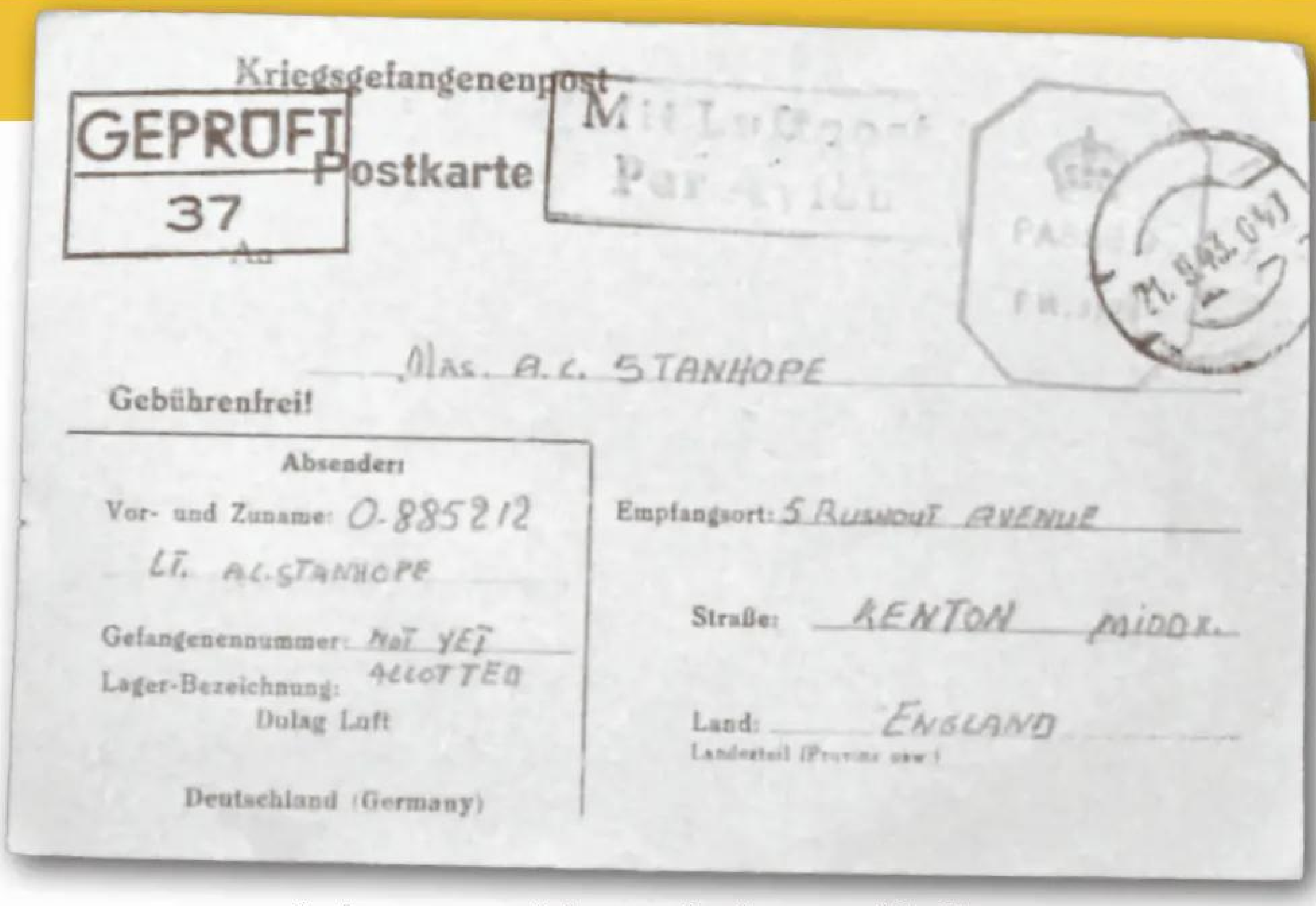
On the morning of 7 September 1943, the 4th FG was assigned to escort B-17s of the 1st Bomb Division to the *Luftwaffe's* Brussels-Evere Airfield in Belgium. Leading the Group's penetration support mission there was Lt. Col. Don Blakeslee, who had been its new Executive Officer since 19 May, at the head of his old 335th FS.

Shortly after rendezvousing with the bombers, over the IP, nine enemy fighters attacked the lead box. Blakeslee led the 335th FS in a bounce on them, which were Fw 190s of *1 Staffel* (Squadron) of *JG 26's II Gruppe* (Group), then based at Grimbergen, a few miles northwest of Brussels. Stanhope soon noticed that one of them had managed to latch onto his tail. As the Focke-Wulf pilot chased him down firing, his Thunderbolt — 1st Lt. Kenneth G. Smith's assigned P-47C-2-RE 41-6207/WD*X and named *MARK II* — was evidently hit by both anti-aircraft fire and the enemy fighter. He bailed out of it, was captured, and spent the rest of the war in a *stalag luft*. There were no claims by 4th FG pilots. The 335th's historian noted, "Tonight the Squadron, with Mrs. Stanhope, mourns the passing of old Stan." Happily, Muriel would, in fact, be reunited with her husband two years later.

The German pilot, *Oberleutnant* (First Lieutenant) Artur Beese, was *1 Staffel's Kommandeur* (commander). Stanhope was his 18th confirmed air victory. Beese had raised his score to 22 by the time he was shot down and killed — coincidentally, by a P-47 — on 6 February 1944.

Stan wasn't flying his own plane, WD*O, on the 7 September mission because it was being repaired. His squadron mate Clemens A. Fiedler had flown it on the 335th's 2 September mission. According to its history, "Returning early due to engine trouble, Lt. Fiedler,attempting to land, pulled up to avoid hitting another plane. In so doing, he pranged [crashed] his ship at the end of the runway." USAAF 41-6233 was repaired and later reassigned to the 551st Fighter Training Squadron of the 495th Fighter Training Group at Goxhill (Station 345) in Lincolnshire, near England's east central coast. The 551st was a P-47 operational training squadron that performed the same function as the one at Atcham had. On 23 September 1944, 41-6233 was destroyed in a mid-air collision and its pilot, 2nd Lt. John D. Heagney, killed.

The 4th FG continued to operate its P-47s, with fair success, until becoming the third USAAF fighter group in the European Theater of Operations to fly the new P-51B in late February 1944. The Group's old Spitfire pilots were particularly pleased with their new Mustangs, as like the Spit they were smaller and more maneuverable than the Thunderbolt — and were powered by the same Rolls-Royce Merlin engine. (Many of them had never acquired a real fondness for the P-47.) Throughout that spring the 4th's pilots scored big against the *Luftwaffe* on their long-range bomber escort missions, and became more famous than they had ever thought possible.



Kriegsgefangenenpost

GEPRÜFT
37

Postkarte

Mit Luftpost
Par Avion

21.9.43

An

Mrs. A.C. STANHOPE

Gebührenfrei!

Absender:
Vor- und Zuname: 0-885212
LT. A.C. STANHOPE
Gefangenennummer: NOT YET ALLOTTED
Lager-Bezeichnung:
Dulag Luft
Deutschland (Germany)

Empfangsort: 5 RUSHOUT AVENUE
Straße: KENTON MIDDX.
Land: ENGLAND
Landesteil (Provinz usw.)

Aubrey would regularly send letters home from the POW camps.

Aubury Stanhope was liberated from his POW camp by US Army soldiers in the spring of 1945. He subsequently served with the new Cold War US Air Force, which service included satellite development with Space Systems Command and command of the Distant Early Warning (DEW) Line in Alaska. He and Muriel resided in Maine, his father's home state, and produced a daughter, Paulette. Aubrey retired from the Air Force in 1967 as a lieutenant colonel with 26 years of service and passed away at his Maine home on 11 September 1994. Muriel Stanhope would pass on 27 January 2017.

Aubrey Stanhope is one of very few military pilots who could claim to have served with three different air forces during the same war — at least two of them in combat. **AC**

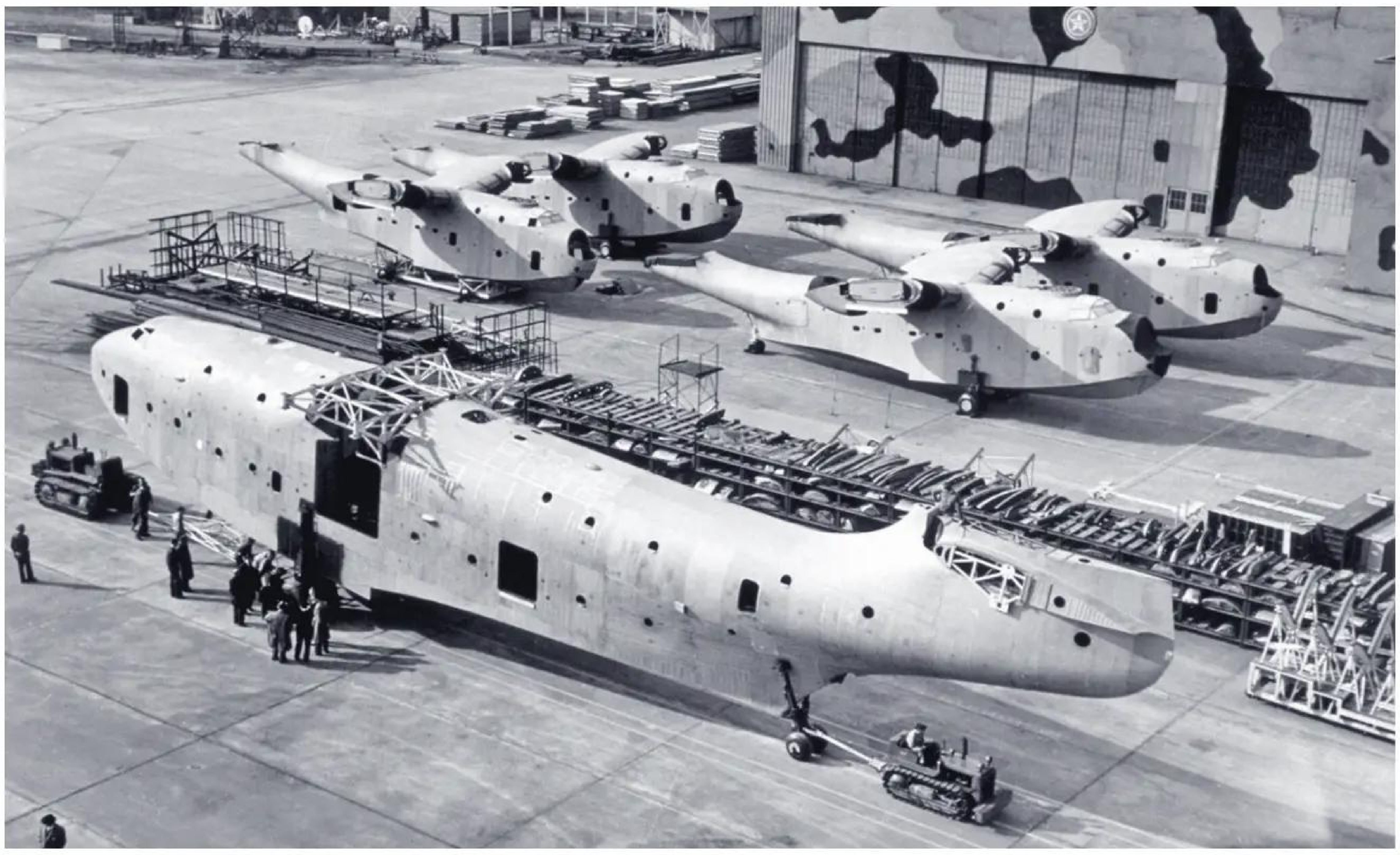
LAST GREAT AMERICAN FLYING BOAT

WE GO ALONG FOR THE LAST FLIGHT OF THE MARTIN JRM-3 MARS AND REFLECT ON THE HISTORY OF THIS AMAZING AIRCRAFT

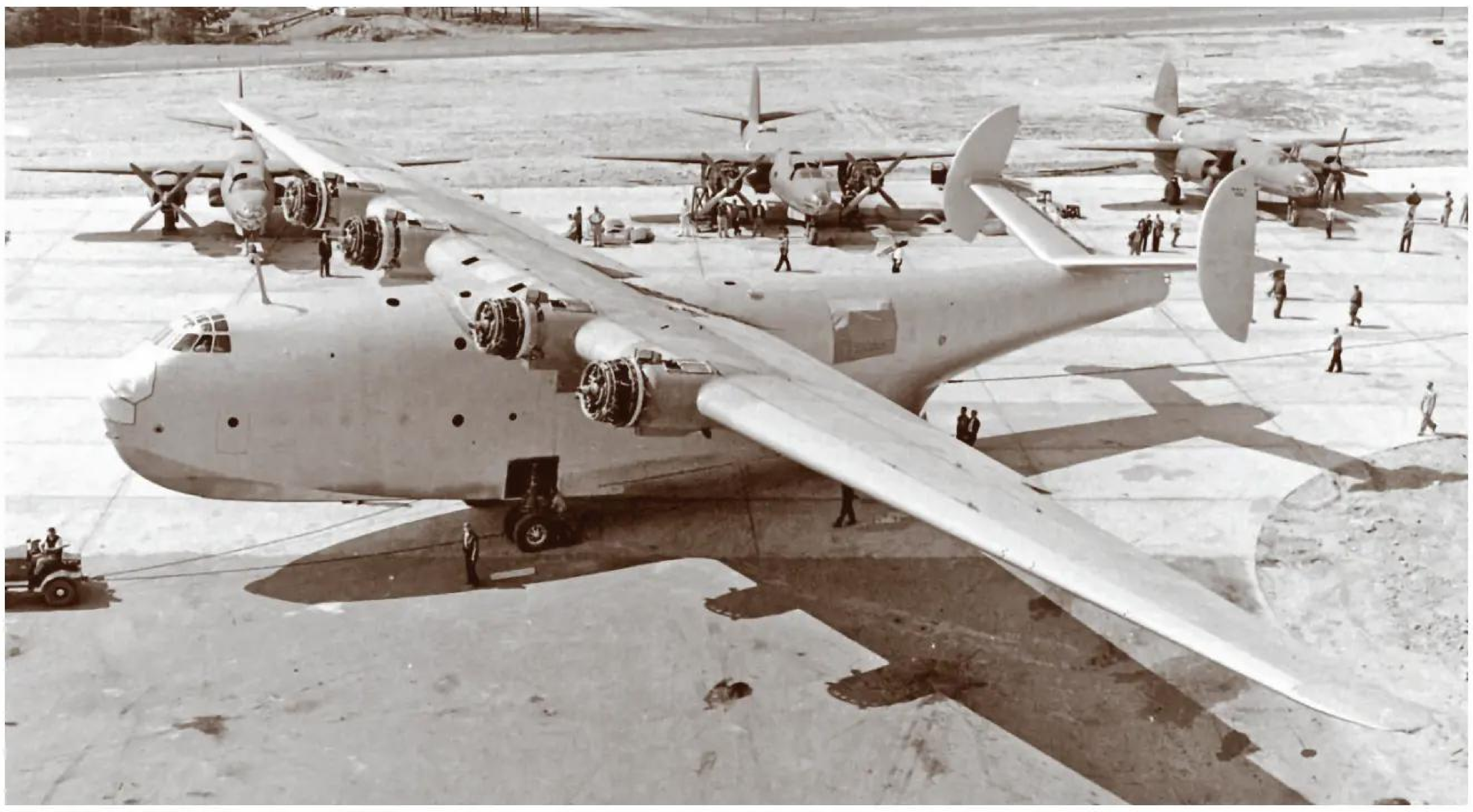
BY MICHAEL O'LEARY

During 1986 I found myself at Canadian Forces Base Comox on scenic Vancouver Island. This was a bureaucratic time period when the historic Royal Canadian Air Force and Royal Canadian Navy were merged into the colorless Canadian Forces title and no one on the base liked the name, including me (fortunately, CF would eventually be eliminated and RCAF and RCN restored). I was at Comox to fly with Canadair Silver Stars operated by units of what had been both the air force and navy. I would also be flying with the Navy's Trackers. I was really looking forward to going in the Tracker since Canadian testing had determined that the airframe was good for 100,000 flight hours and this meant an unlimited lifetime. The Trackers were going to receive a number of upgrades including turbine engines. Same with the Silver Stars. These gleaming beauties were going to get all sorts of avionics upgrades and other modifications to ensure a longer life. There was no point getting rid of aircraft when

This beautiful tight-in view of the prototype illustrates the fine finish of the aircraft as well as details of the nose turret.



The fuselage of the XPB2M-1 being towed in front of a row of incomplete PBM Mariners. Note how the hangars have been camouflaged.



The prototype nearing completion. The later JRMs would be vastly different.

The XPB2M-1 being christened. This view shows the massive nose turret to advantage.

they still had plenty of operational capability.

I was up with a couple of the Trackers and seated between the two Wright radials that were hammering away. Looking out through the bulged canopy windows I could see the underwing rocket pods each aircraft carried. These Trackers had a bite. As we headed back to the field, we received a message that Comox was under "attack." This unannounced exercise caused the Trackers to sharply break in opposite directions and then dive in to "fire" rockets at the "enemy forces" that had breached the field's perimeter. After we had made a couple passes, the exercise was over and we pulled up for some altitude.

One of the pilots suggested I should get a tour of the island's very rugged western shore line, which was fine with me. As we headed out, I asked over the intercom "Aren't those Martin Mars flying boats based near here?"

"You bet," said one of the pilots. "Want to go see them?"

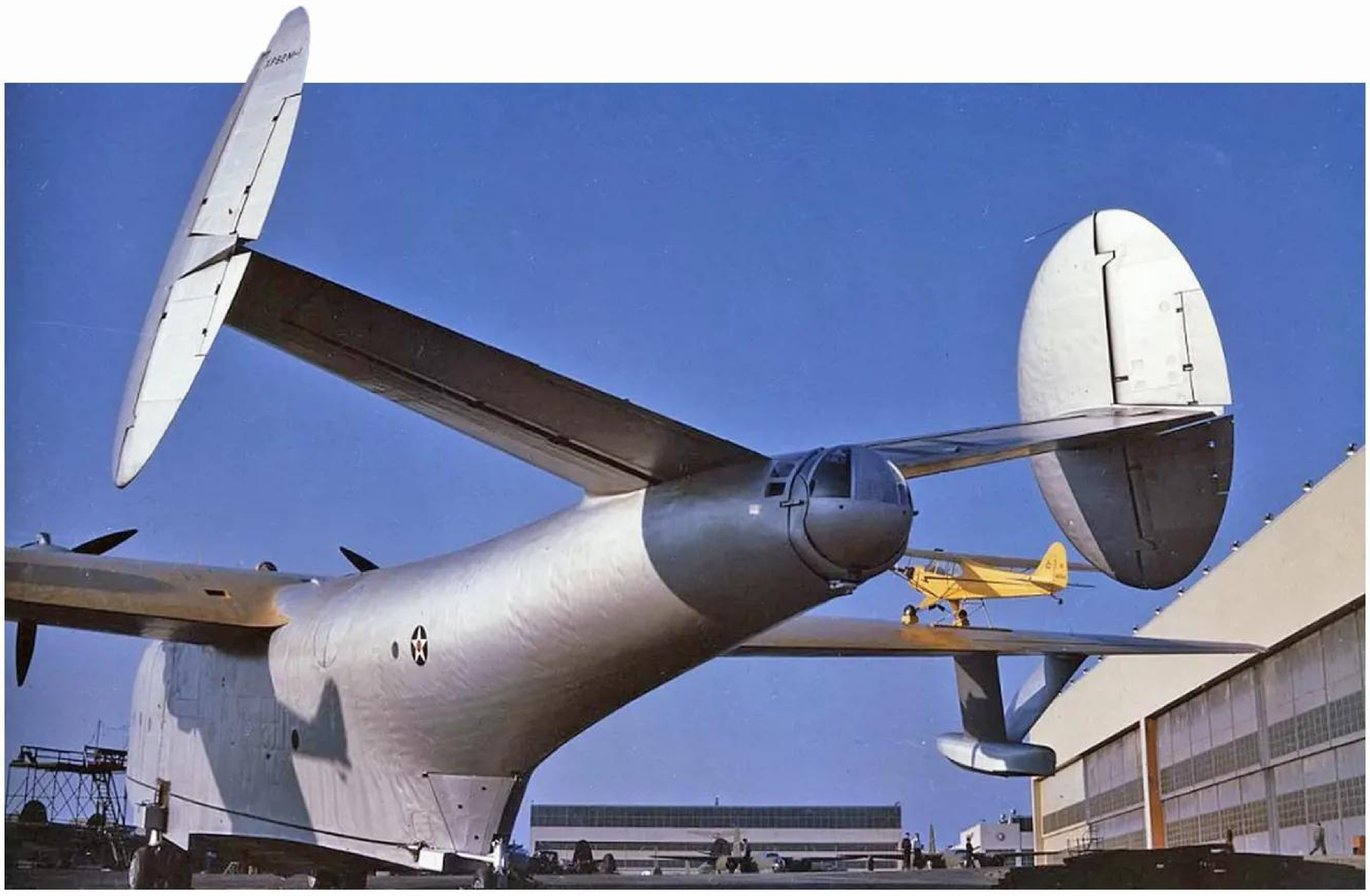
Foolish question.

"Dial 'em up Johnny and tell them we are coming," said the pilot to his right-seater.

Doing wing-overs we headed down for the small town of Port Alberni and the long stretch of Sproat Lake. Roaring down over the tree tops, the pilots dropped down even further when they reached the lake. Off to the right, I could see that a bunch of figures had come out of a large hangar and were waving at the Trackers. Dead-ahead were the hulking shapes of the two red and white Martin JRM-3 Mars flying boats. Shoving the throttles forward, the Trackers headed for the boats while I snapped a few shots as they both broke up and to the left and right as we approached the classic aircraft. Little did I know that this would be the start of a long relationship with two of the US Navy's most famous flying boats. First, let's take a bit of a look at the history of the type.

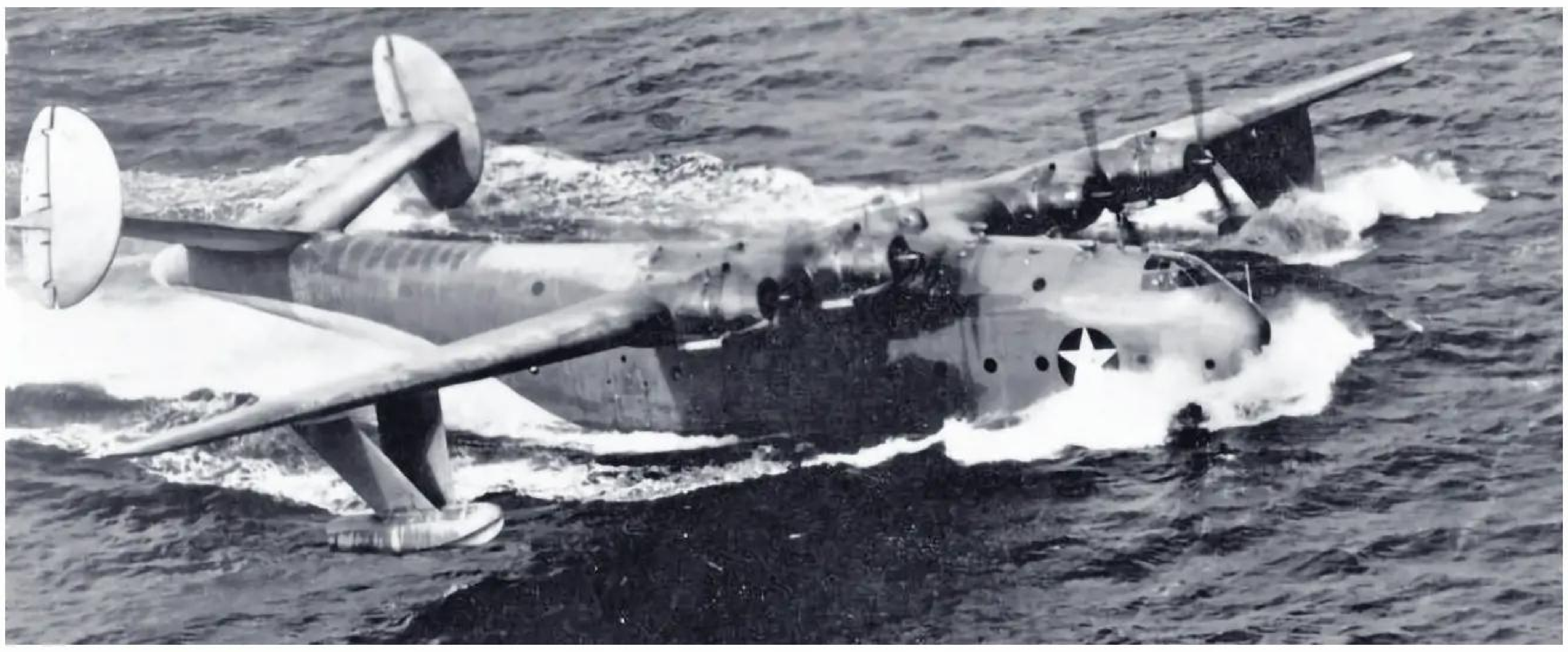
CREATION OF A LONG-RANGER

As the decade comprising the 1930s progressed, Navy planners reasoned that the vast areas of the Pacific were going to become the likely battleground for the next war and that the enemy the United



Kodachrome view of the twin tails unique to the XPB2M-1 Mars prototype.

The XPB2M-1 meets the water for the first time during its launching.



As the XPB2M-1R, *The Old Lady* shed her turrets and received a new camouflage scheme.

States was going to engage would be Imperial Japan. At the time, the Navy was run by the "battleship admirals" and they were extremely fond of their sea-going behemoths that bristled with 16-inch cannon that could demolish even the most fearsome aggressor at extremely long ranges. These important officers were not particularly interested in the newly-emerging role of the aircraft carrier nor of the advances in Naval Aviation overall.

And Naval Aviation was advancing. Some of the biggest leaps were being made in patrol aviation with the Consolidated PBY Catalina series of flying boats/amphibians. The Cat had amazing range and it could perform a wide variety of missions — everything from general reconnaissance to attacking submarines to torpedoing surface ships. The Cat did have its drawbacks. Performance was not exactly breathtaking and the load-carrying capability would not set any new records.

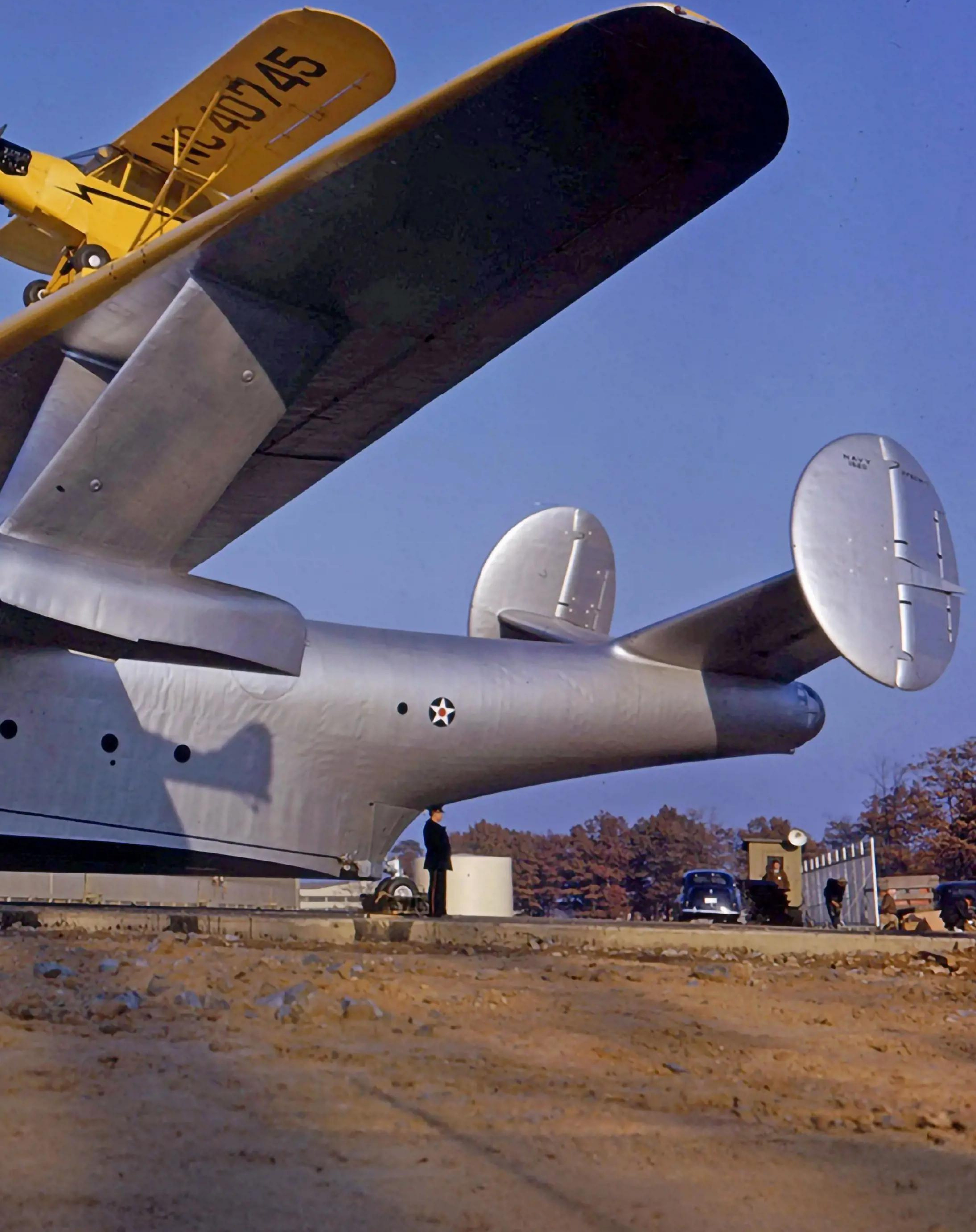
Located in Maryland, the ever-innovative Glenn Martin was pioneering the Pacific and other routes with his China Clipper — a plane that grabbed international headlines while being operated by Juan Trippe's Pan American. This was a method of airline flying only for the very wealthy but Pan Am's gleaming Clippers were departing San Francisco Bay and setting out on a route that would work all the way to China. As America began to slowly crawl away from the devastating Great Depression, Martin's flying boats became a symbol of forward progress and their Art Deco styling seemed to express a new age of modernism.

Martin knew his company had the capability of building a flying boat that could become an "aerial dreadnought" — a heavily-armed ocean-spanning warplane that would never need a land base. Martin and the Navy began discussions on this aerial beast with its 200-foot wingspan as the Navy was carrying on about creating a replacement for the Catalina. On 23 August 1938 Martin would receive a contract for the plane that became the PBM Mariner. Still, this was not the big bird that Glenn envisioned. However, the Baltimore facility was rapidly expanding with new orders for the plane that would become the Marauder along with the more-staid Maryland and Baltimore. Martin developed a reputation for designing and building high-performance aircraft in the least amount of time. Talks went back and forth and finally resulted in an aircraft that would receive the designation XPB2M-1 and the name Mars for the Roman god of war. Navy officials saw the basically compete airframe during late 1941 and realized this was a superb tool for traversing the vast Pacific. However, they did not realize that the Japanese sneak attack was only days away.

As noted in the individual aircraft

NEXT SPREAD: **Martin hired well-known photographer Hans Groenhoff to take a series of 4X5 Kodachrome transparencies of the XPB2M-1 at the factory. To give an idea of scale, it was decided to place a Piper J-3C Cub on the top of each outer wing panel. Joe Scheil, who is currently undertaking massive project to document the J-3 series, stated "The aircraft are NC40743 [c/n 7457] and NC40745 [c/n 7459]. It appears NC40745 disappeared sometime during WWII but NC40743 would eventually go to Dothan Aviation in Alabama on 13 September 1961 and was apparently modified as a duster/sprayer to go along with the company's B-17s, PV-2s, and B-25s. The registration was cancelled in 2012 when the FAA cleansed old records."**

MARS


NC40745

histories, the first Mars would have its problems. The plane was designed to mount eight .30-caliber machine guns and was capable of carrying bombs, torpedoes, or depth charges. Martin's chief test pilot was Dr. William K. Ebel and on 3 July 1942, he occupied the left seat of the Mars while Ellis Dent Shannon was in the right (he would later become chief test pilot for Convair) as part of a 20-man crew. Chief flight engineer was Benjamin Zelubowski and Capt. Harold Gray of Pan American was also aboard (an airliner variant of the Mars was proposed and will be the subject of a future article). Power boats moved the Mars down Dark Head Creek from the factory and into the channel of the bay, some 15 miles north of the mouth of the Patapsco River. To run up the engines, Ebel took the Mars in half circles, first to the right and then to the left. Once that was complete, he lined up the Mars and full power was applied and the aircraft thundered past a small flotilla of boats carrying Martin and Navy officials. One boat held Brig. Gen. Jimmy Doolittle and Glenn Martin and it would have been fascinating to have heard that conversation. The first flight went well but the changing aspects of the war would consign the XPB2M-1 to a single prototype.

PICK THE MARS OF YOUR CHOICE

THE NAVY PREPARED THIS FACT SHEET FOR POTENTIAL PURCHASERS OF THE MARS

PHILIPPINE MARS (BuNo 76820)				
AIRFRAME				
Flight Hours Since New	18,661.8			
Flight Hours Since Overhaul	1958.9			
ENGINES	***1***	***2***	***3***	***4***
Total Time	2637.1	1885.4	1815.5	1866.8
Since Overhaul	789.9	409.7	453.4	737.6
PROPELLERS	***1***	***2***	***3***	***4***
Total Time	5459.4	4531.3	3704.8	7590.3
Since Overhaul	1638.8	1245.0	945.9	732.9
MARIANNAS MARS (BuNo 76821)				
AIRFRAME				
Flight Hours Since New	19,654.6			
Flight Hours Since Overhaul	3705.9			
ENGINES	***1***	***2***	***3***	***4***
Total Time	1239.0	2984.2	1711.3	2497.0
Since Overhaul	623.9	437.1	435.0	63.3
PROPELLERS	***1***	***2***	***3***	***4***
Total Time	7643.9	8933.6	4034.7	6241.4
Since Overhaul	354.3	1237.0	833.5	589.3
HAWAII MARS (BuNo 76823)				
AIRFRAME				
Flight Hours Since New	20,038.2			
Flight Hours Since Overhaul	2390.4			
ENGINES	***1***	***2***	***3***	***4***
Total Time	1943.2	1969.6	2501.8	1132.7
Since Overhaul	228.6	382.4	519.8	355.8
PROPELLERS	***1***	***2***	***3***	***4***
Total Time	4913.9	6564.2	6312.0	5434.5
Since Overhaul	472.2	1237.4	1957.7	1064.0
CAROLINE MARS (BuNo 76824)				
AIRFRAME				
Flight Hours Since New	10,116.8			
Flight Hours Since Overhaul	2390.4			
ENGINES	***1***	***2***	***3***	***4***
Total Time	2831.9	2263.5	2530.8	1973.1
Since Overhaul	755.9	430.9	774.5	679.1
PROPELLERS	***1***	***2***	***3***	***4***
Total Time	1979.3	4935.8	6770.8	9142.0
Since Overhaul	1349.7	1670.5	1644.8	1315.6

There was a need for a very long-range transport and a great deal of redesign resulted in the JRM-1, which was a vastly superior aircraft to *The Old Lady* as the craft had been named. The Navy had been impressed by the performance of what had become the XPB2M-1R and placed an order for 20 JRM-1s (BuNos 76819-76838) in a final contract issued during January 1945. However, the end of the war would see the contract reduced to just six aircraft and these planes would be operated by VR-2.

The new JRM-1 would have the basic wing of the PB2M-1R but the fuselage was completely redesigned to take advantage of the latest in aerodynamics. The twin tails of the prototype were eliminated in favor on one massive vertical while the step was extended four feet to benefit water handling and cargo carrying capabilities. Very large outward opening doors were installed under the wings and they were serviced by electric hoists capable of lifting 5000-lbs. Two new rear side doors were also added and these were 62-in high by 50-in wide. Many of the interior bulkheads were removed and replaced by sturdy frames so the interior would be opened up to accommodate cargo.

Freight flooring was installed to handle heavy loads on both levels of the interior while a stairway led from the rear of the cargo deck to the upper deck. A floor door was fitted that measured 24-in by 50-in and this allowed the movement of cargo onto the upper deck.

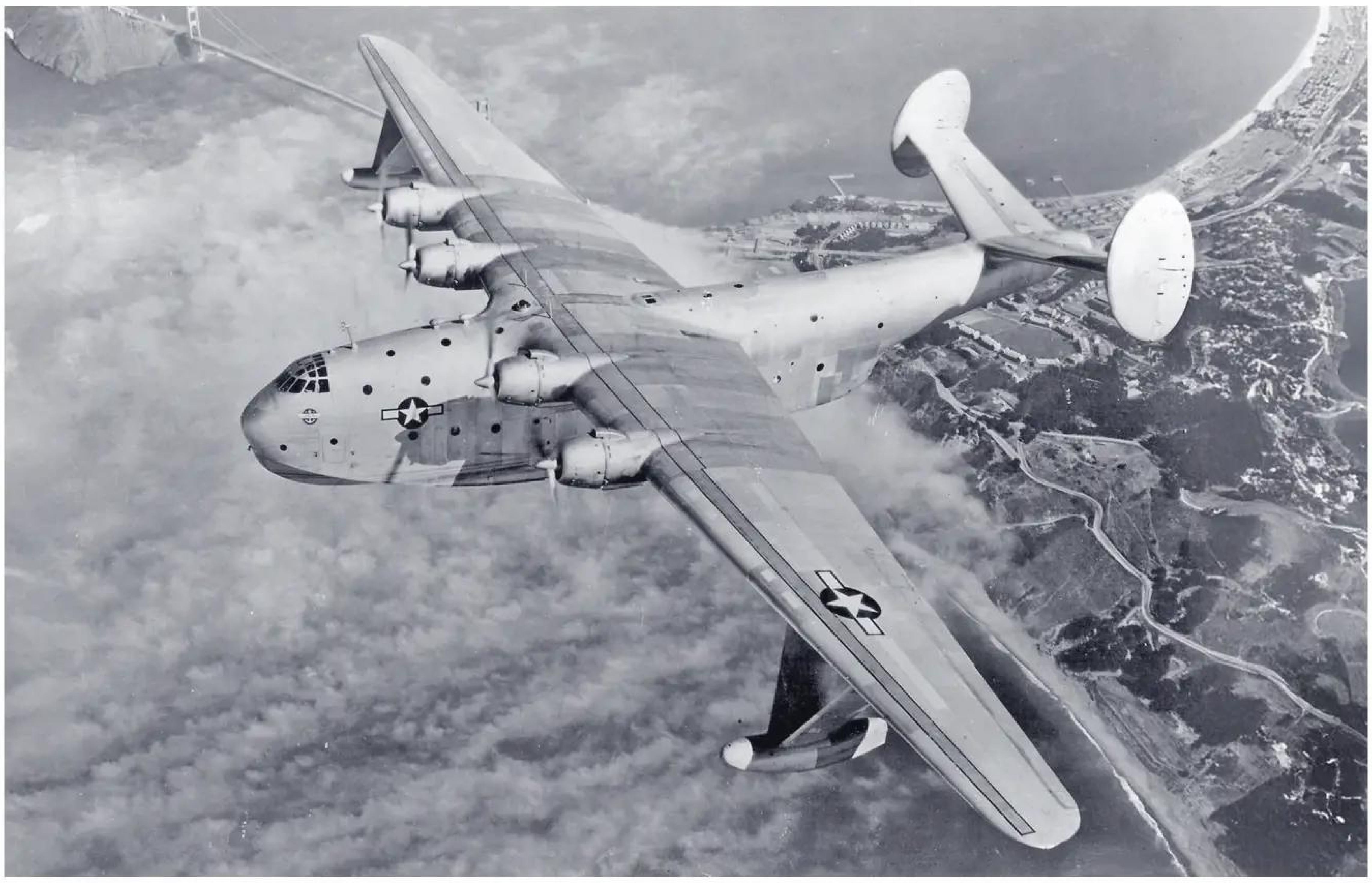
PHILIPPINE MARS
NAVAL AIR TRANSPORT SERVICE

Greg positions the Baron under the Mars to better illustrates the craft's 200-ft span along with the outer floats, which are held in place with streamlined pylons. With the headset off, the roar of the four R-3350s was clearly discerned.

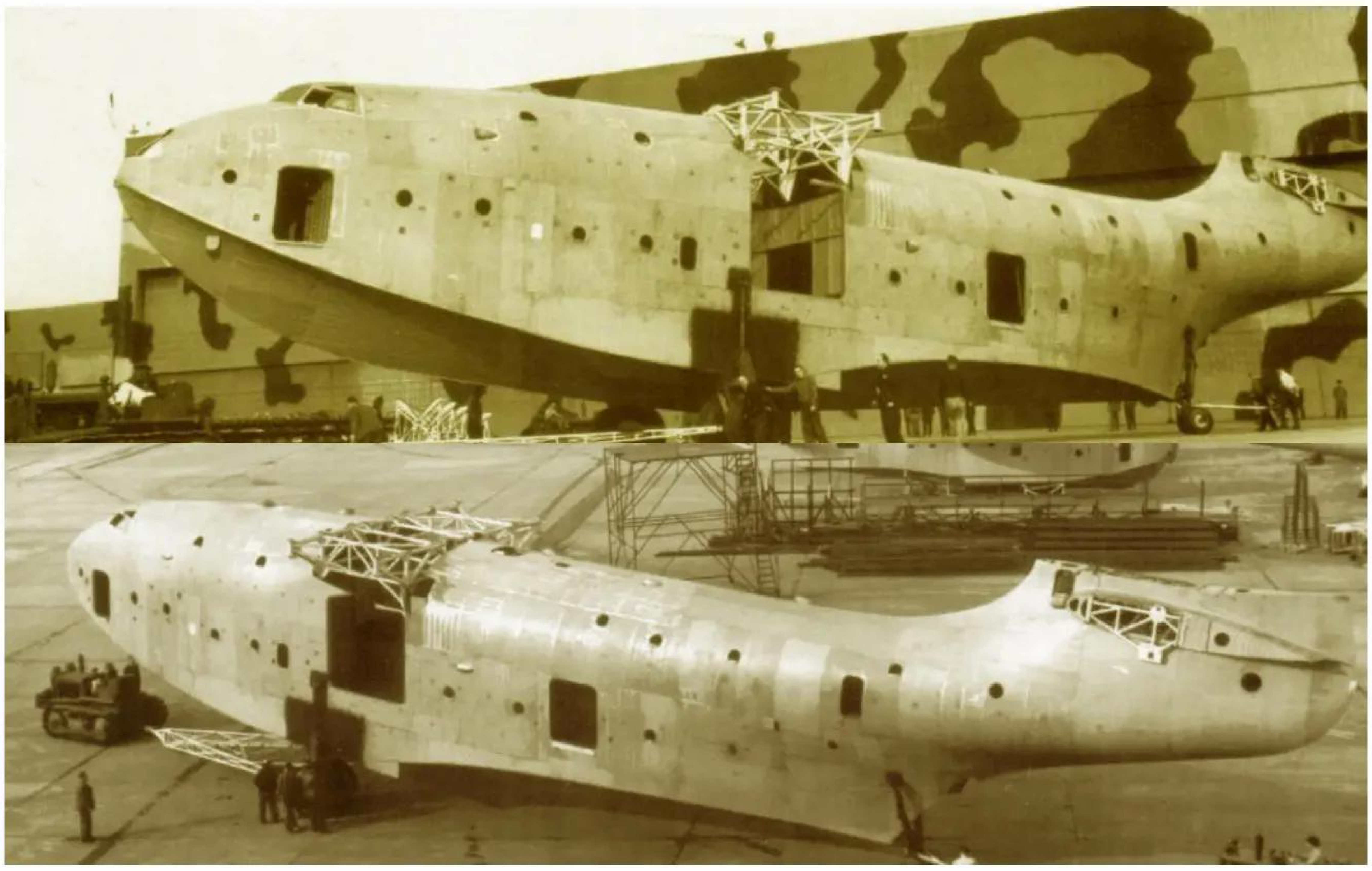
The upper deck had washrooms at the far aft while the APU compartment was fitted forward of the stairs. For the long flights, two crew sleeping quarters were provided and each had four bunks. From the flight deck, steps led down to the bow anchor compartment and the galley where hot meals could be prepared.

From the start, the JRM-1 was to also have a troop-carrying capability. Canvas bench-style seats could be quickly installed for 133 fully-equipped combat troops. As a flying ambulance, up to 100 stretchers could be carried along with seating for 20 medical personnel. When carrying passengers, seats were placed fore and aft while the center of the aircraft was used for cargo and mail. When configured for cargo, virtually the entire interior could be used for storage.

As with every company, Martin liked to put out plenty of public relations facts and releases stated that each Mars had three million rivets, 7.5 miles of wiring, 60,000-lbs of aluminum, 800-lbs of plastics, 750-lbs of rubber, 25,000-lbs of steel, 800-sq-ft of plywood, 650-cu-yds of fabric, 300-gallons of paint, 24 telephones, and 2000-lbs of copper, brass, zinc, tin and other metals. Much of the structure was anodized to prevent corrosion damage from salt water. The



By 1944, the XPB2M-1R had been stripped of camouflage and reverted to a natural metal finish. The transport was photographed passing over a partially obscured Golden Gate Bridge.



The incomplete fuselage of the first JRM-1 *Hawaii Mars* as it is rolled out of the Building B for Building D where the wings and tail will be attached. The photos were taken on 19 March 1945.

ALAMEDA TO HAWAII

ACROSS THE OCEAN IN THE MARS - BY COL. BOARDMAN C. REED

Slowly climbing out past Oakland. Note the waterline on the float. (B.C. Reed)

Before his passing, our good friend Boardman Reed recalled his flight in the Mars. "I have always been somewhat of a 'type hog,' " said Boardman. "I was scheduled for a USAF trip to Hawaii in regards to the Boeing B-50 that I was currently flying. I had a couple choices on how to get there. The USAF would provide an airline ticket or find space on a C-54 Skymaster. I started thinking about another option. I had always been fascinated by the Martin Mars. I had been inside the plane but had never flown in one. I pulled a few strings with some of my Navy pals and received a seat aboard a Mars scheduled to depart Alameda on 8 July 1954. Arriving at the base, it was a beautiful day and the Navy really had their act down. Check-in was much like an airline terminal of the day and after receiving my boarding pass, I got a chance to observe my fellow passengers. Unlike today's cattle car approach to airline flying, the Mars passengers were dressed for the occasion. Several Navy families were travelling to Hawaii and the officers wore their best uniforms with ribbons while the wives had on the fashionable dresses of the day along with high heels. The kids were decked out in Sunday best. A number of Navy Sailors and Marines were also onboard and they were looking smart in sharply-pressed uniforms. Our baggage went into the huge side doors along with various crates of parts.

"We received a pre-start briefing from one of the enlisted crew and then made sure we were strapped in. Accommodation was certainly not luxurious but it was more than adequate and we took pillows and blankets for the long flight. I paid particular attention to engine start as each Wright kicked into life and I could see the billows of smoke from my window but I guess 'porthole' would be a better term. In the past, I had made many flights on PBY Catalinas so the engine run-up was of great interest. The Mars maneuvered very smoothly in the Bay as the engines were run up and when that was completed, the aircraft's nose was pointed west and takeoff power was applied. I can't remember completely, but I do not think there was much in the way of sound-proofing because it was loud and this was combined with the slapping of the water against the hull as we picked up speed. I could tell some of the passengers were a bit apprehensive but the kids were really enjoying the experience.

"Since I was flying four-engine bombers, I was used to long takeoff runs but the Mars run was *really* long. Finally, the plane lifted off and we gained altitude at what would be called a leisurely pace. Flying low past Oakland, San Francisco, Alcatraz, and finally the Golden Gate Bridge had everyone glued to the portholes. Then, we settled in for the long flight as box lunches, newspapers, and magazines were passed around. After a few hundred miles, I unstrapped and went forward to talk to the crew. The view from the cockpit was magnificent and I was greatly impressed by the amount of space. After a bit, I joined the passengers and most of us settled down for a nap amongst the pounding of the R-3350s. The arrival and landing were again trouble-free and right on time. Touching down in a big flying boat is quite an experience and I once again enjoyed the reactions of the passengers. The Navy had the Mars running like an extremely professional airline and I was really glad I had the chance to add the JRM to my list of aircraft in which I have flown."

As can be seen, passengers dressed for their flight on the Mars.

JRMs were truly amazing aircraft and they would draw crowds wherever they traveled.

XPB2M-1 BuNo 1520 THE OLD LADY

At what point the XPB2M-1 picked up this affectionate nickname is not known. When the massive seaplane was moved to the concrete ramp at the company's Middle River facility, the airframe had been sprayed in gleaming aluminum paint that not only looked good but also served as an anti-corrosion treatment. The top of the wing and just under the leading edge was spayed in Insignia Yellow and this would guarantee that the aircraft could be easily spotted if forced down at sea. The name MARS was proudly applied to the nose section when the craft slid into the water on 5 November 1941. After that, a small army of workers traveled back and forth on launches to carry out final equipment installation and testing.

The early model Wright R-3350s were not without their problems and the same was true of the first propellers, which had an extremely thick lower chord that tapered to a point. On 5 December, engine tests were being undertaken when the flight engineer noticed problems with #3. As he cycled the propeller, it would not go into reverse and it appears that gears were stripped. Then with a terrible screech, the prop went into flat pitch as the RPM pegged. This overspeed caused the R-3350 to catch fire and the speeding prop came apart with one blade ripping into the fuselage and almost hitting the flight engineer at his position.

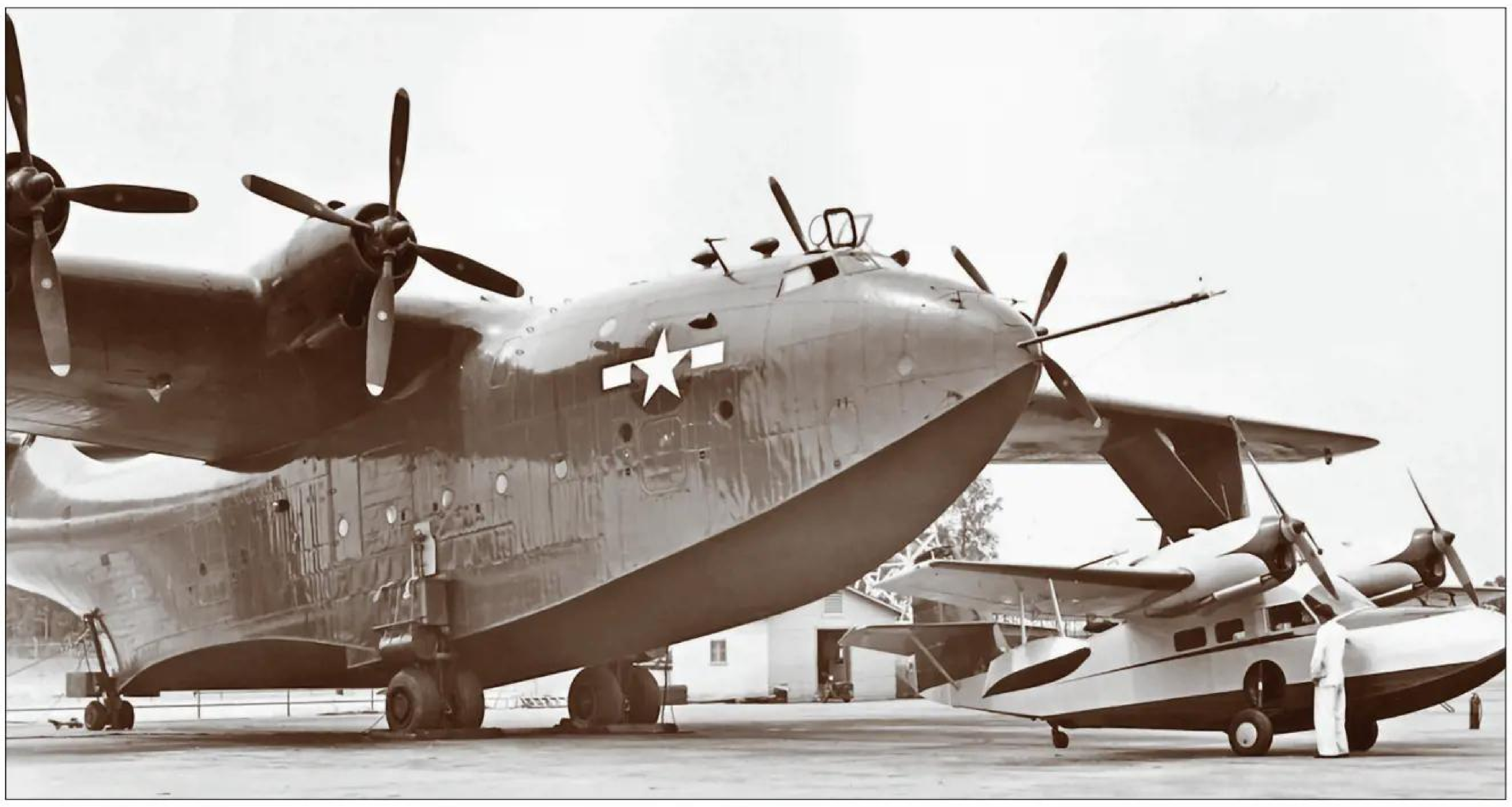
Quick thinking by the crew saw the anchor dropped and the pilot applied power to the other engines and gently ran the flying boat aground. This allowed the fire trucks, which were now speeding from the main hangar, to arrive near the aircraft to begin spraying water on the fire but the engine burned free of its mounts and fell into the river where it sizzled. This fact probably saved the plane since the fire crew could now blast the area formerly occupied by the engine and this put out the fire.

Needless to say, this was a set-back for the program and a disappointment for the hundreds of workers involved in building the prototype. Put on its beaching gear, the plane was towed back to the hangar. Two days later, the Japanese launched their sneak attack against Pearl Harbor and other American facilities and the United States was suddenly at war.

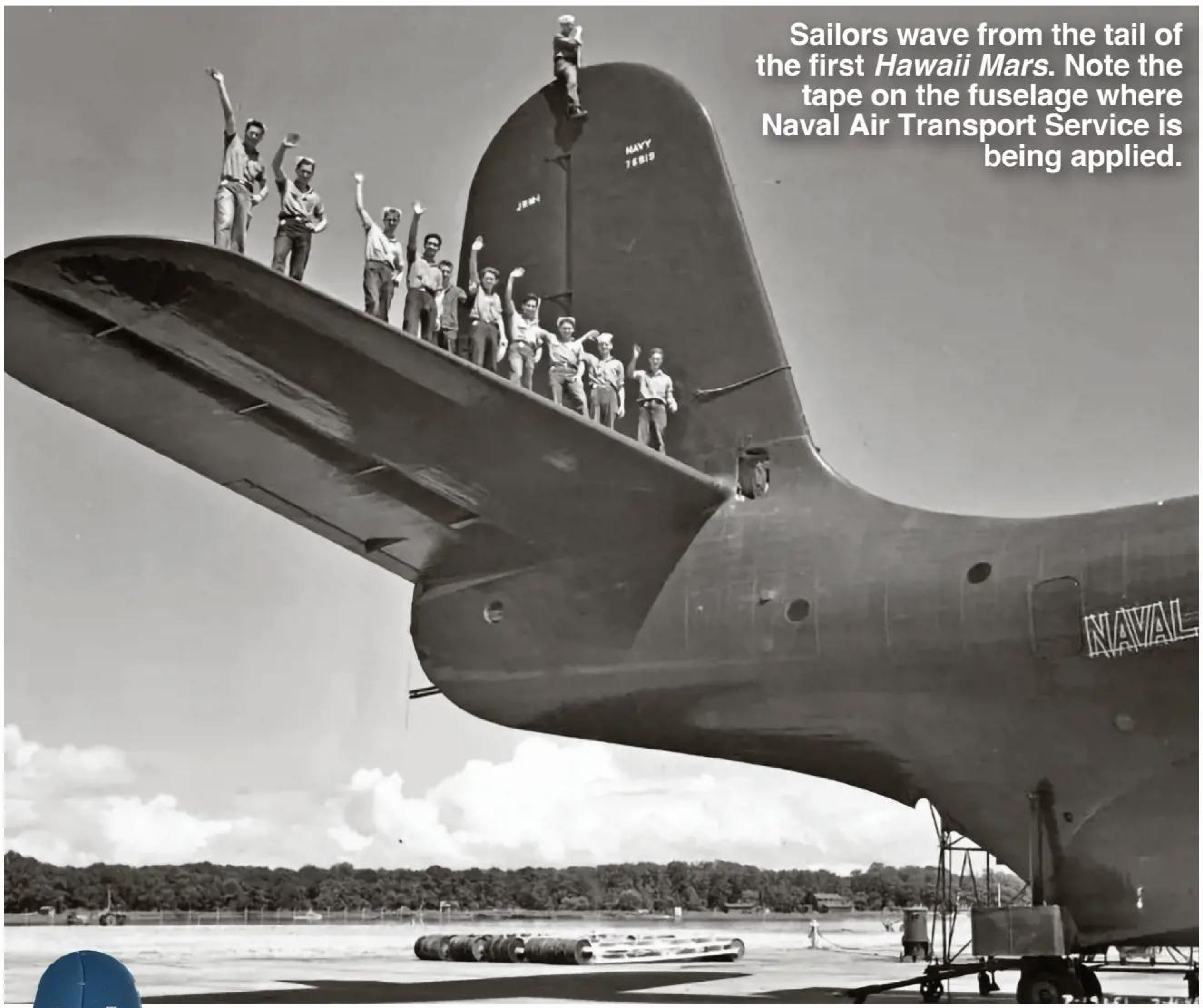
The Martin crew was now strongly motivated to repair the prototype and work was completed in just 20 days and the flying boat looked as good as new. Once again back in the water on 2 January 1942, work towards final systems checks moved forward but the problematic three-blade props, which were constructed of laminated wood, remained in place on the 2000-hp radials. At Wright, work was moving forward on new and improved variants of the R-3350 and the original radials were replaced with 2200-hp units fitted with metal 16-ft 6-in propellers.

The XPB2M-1 did not get airborne until 23 June 1942 and by this time the war in the Pacific was in a state of flux. Martin upped the flight test program and the payload was gradually increased until the design load of 30,000-lbs was finally lifted on several occasions. The final Martin company flights took place on 4/5 October and covered 4600 miles in some 32 hours and 17 minutes of flight time. The long range of the Mars was quickly becoming evident.

In the Pacific, the Consolidated PBY Catalinas were providing heroic service but it was now obvious that an aircraft the size of the Mars would be very vulnerable to the Zero and Oscar fighters of the Imperial Japanese Navy



JRM-1 *Hawaii Mars* parked with a Grumman Widgeon during July 1945. Note the nose probe attached to the Mars.



Sailors wave from the tail of the first *Hawaii Mars*. Note the tape on the fuselage where Naval Air Transport Service is being applied.

NAVAL AIR TRANSPORT SERVICE
PHILIPPINE MARS

Greg Colyer flying formation on the Mars as it heads down the California coast. (Roger Cain)

NEXT SPREAD: **Flight engineers move the throttles for the four R-3350s forward as the *Philippine Mars* executes a climbing left turn while releasing its load of 6000 gallons of foamed water. Registered C-FLYK, *Philippine Mars* was conducting crew training near its Port Alberni base during an April 1988 visit to the facility when both aircraft were operational.**

C-FLYK

PHILIPPINE MARS
C-FLJK

KERMIT AND THE MARS

THE WELL-KNOWN AIRCRAFT COLLECTOR SHARES HIS EXPERIENCES WITH THE MARS - **BY KERMIT WEEKS**

Kermit Weeks filming the Mars during his visit to Sproat Lake. The nose of the incomplete Mars #8 is in the background.

Wow! What an opportunity to get a chance to spend some time hanging around the Martin Mars at the Coulson tanker base at Port Alberni in Sproat Lake on the scenic island of Vancouver. I had seen the Mars in *Air Classics* and other magazines over the years and after acquiring my Short Sunderland in 1995, I always wanted the chance to see the Mars up close. Years later at an NBAA convention in Las Vegas, I happened to come across a booth promoting the "Ultimate Flying Experience" and this is where an individual could do varying degrees of ground school combined with flying time in the Mars. And while I did not jump at the opportunity right away, several years later I realized the Mars might be getting towards the end of their flying careers. I sent an email to the Coulson website and asked about the chance of flying the Mars. I was somewhat surprised when owner Wayne Coulson personally answered my email!

Unfortunately, this was mid-September and the planes had gone into hibernation for the winter. I had learned that there was a pending trade to the US Navy Museum with the *Philippine Mars* and assuming part of their end of the deal was to deliver the plane, I offered to pick up the fuel tab for a bit of training and being part of the crew that would take the Mars to Florida. This trade deal continued to "pend" for two more years and it eventually evaporated.

Early in 2016, the EAA contacted Wayne to see if there was any chance of bringing an airplane to the big fly-in at Oshkosh. In the past, this was not possible because the Mars were always "on call" during the fire season. Due to their own political considerations, the contracts for the Mars had not been renewed and Wayne saw 2016 as the opportunity to bring *Hawaii Mars* to Oshkosh and show the magnificent aircraft to the huge crowd. Wayne mentioned my earlier offer to pick up the fuel tab (which turned out to be 40 grand!), the EAA called me, and the rest was history!

Over the course of two weeks, I got to hang out at the Coulson base and meet and fly with the crew. They were a great group and their love for the Mars was evident. After some ground school and asking a lot of questions about the Mars with the pilots, flight engineers, and mechanics, I got to not only ride along and observe but to also fly from the right and left seats doing takeoffs and landings as well as water pick-ups and drops.

When I arrived at Sproat Lake, the *Philippine Mars* was located in front of the *Hawaii Mars* because of the possible Navy trade so I got to see them both in the water at the same time as well as being able to witness the operation of launching and retrieving the giant airplanes up and down the concrete ramp.

The Mars flies like you would expect a big airplane would and there is a lot of crew coordination to safely operate and fly the JRM. The amount of land as well as water equipment required to maintain the aircraft is off the charts and it takes above the budget of a third world government to keep them going. It has been the budgets of the US Navy and the Canadian forestry industry that have allowed the Mars to fly when they should have been considered obsolete a half-century ago! Engines and props were becoming a problem at the time of my flight and the impracticality of keeping the aircraft going put them beyond the reach of most ultimate "boy toy" dreams.

As with the Short Sunderland, you need three to legally fly the Mars (pilot, copilot, and flight engineer) but you also need a bowsman for leaving and mooring to the buoy. In the Mars operation, Coulson operated with a second flight engineer. Our flight to Oshkosh took 8.5 hours with our highest altitude being 11,500 feet going over the mountains. As it turned out, this was the critical altitude for the Wright R-3350 engine superchargers as the throttles were fully forward at a high cruise setting of 33-inches and 2200-rpm. True airspeed got as high as 180 knots and with the help of tailwinds at altitude we actually saw ground speeds over 200 knots! But what comes around goes around and later in the flight we descended due to weather and after throttling back to normal cruise, we picked up a headwind! For general flying, fuel consumption is about 7.5 gallons a minute, which computes to a gallon of 100LL every eight seconds!

When I made my Mars trip, it was truly amazing these airplanes were still flying. A lot of credit goes to the love and teamwork everyone has had for these magnificent airplanes over the years. It is off-the-chart amazing that they did not get scrapped when the Navy finished with them and I liken it to going to a modern zoo and running across a brontosaurus.

Looking back, I really owe a lot to Wayne Coulson and his employees for allowing me to be part of this amazing once-in-a-lifetime historic adventure. I flew with Mars Captains Dev Sevkeld and Peter Killin as well as Flight Engineers Roy Copeland and Dave Millman.

and Army. Therefore, the decision was made to remove the aircraft's turrets and convert the patrol bomber into a pure transport that could be utilized for moving massive quantities of vitally needed parts.

With this decision, no time was wasted in flying the Mars back to Martin where turrets and armor were removed along with the wing and fuselage bomb bay systems. For its new mission, it was obvious that strong flooring had to be installed and this was done while existing hatches were enlarged and new access panels were cut into the fuselage. Also, winches and other loading equipment was installed and all this meant that the plane received the new designation of XPB2M-1R with the "R" signifying the aircraft was now a transport.

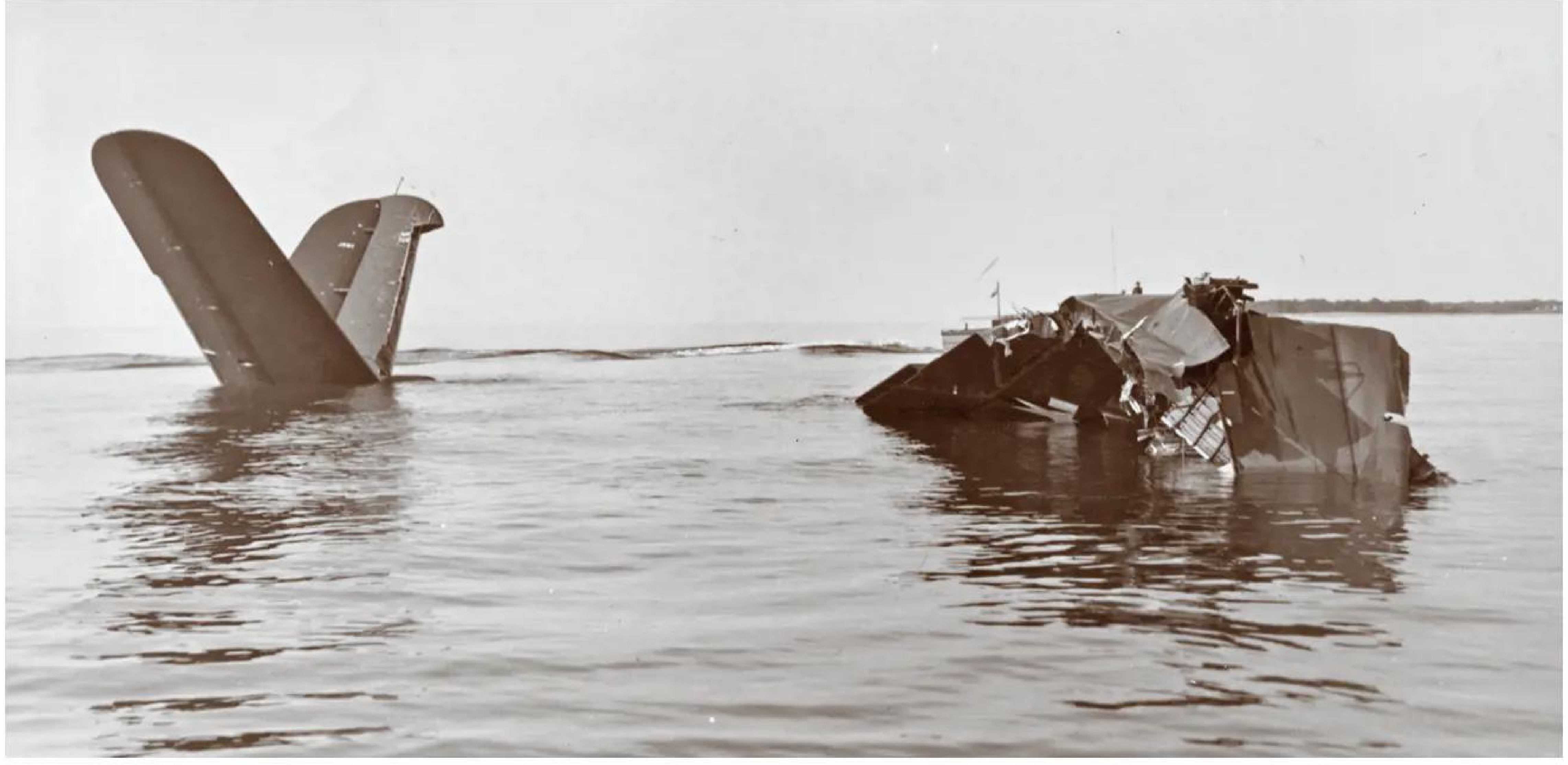
To operate the Mars, the Navy set up VR-8 — Air Transport Squadron Eight — on 8 October 1943. Headquarters for the unit was established at NAS Patuxent River and the prototype was used for testing the various protocols that would

NEXT PAGE: ***Philippine Mars*** **casts its reflection on Sproat Lake.**

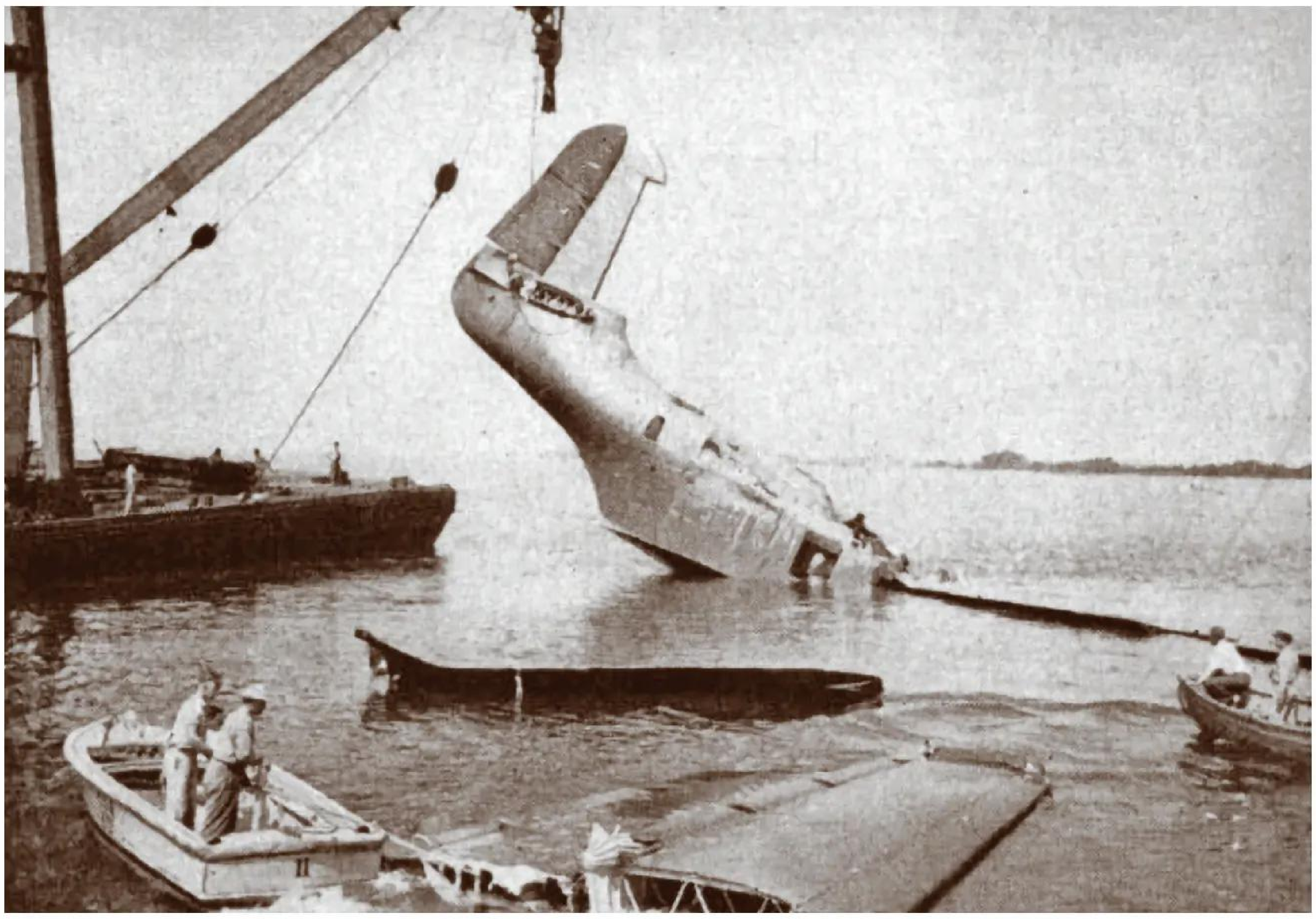
JRM-1
NAVY
76820
NAVAL AIR TRANSPORT

PHILIPPINE MARS
YANG MING

PREVIOUS SPREAD: **On the morning on 10 February, the Mars crew unhooked from the mooring near the USS *Hornet* Museum. Starting the engines, the flying boat executed a series of lazy turns while the Wrights were warmed and then run-up. Pointing at the Bay Bridge (in the background), the engineers advanced the throttles and the Mars began its last-ever takeoff from San Francisco Bay. Lifting off, the Mars rose over the bridge and then began a left turn that took it over Treasure Island and the historic Pan Am clipper base before pointing west. In this photo, Greg Colyer has locked onto the right wing of the Mars as the city of San Francisco dominates the background and the famous prison of Alcatraz sits under the tail.**



Hawaii Mars **did not live long. The wreckage of the aircraft is seen in Chesapeake Bay on 5 August 1945.**



The wreck of *Hawaii Mars* is removed from Chesapeake Bay.

MARS OPERATIONAL SUMMARY

THIS PARTIAL COMPILATION ILLUSTRATES THE EFFICIENCY OF THE JRM

During their entire period of USN operation, each of the Mars remained in the water for 6/8 months at a time, except when on a transpacific flight. Official Navy figures are from VR-2 and are available only from the years 1950/1956.

YEAR	PASSENGERS	CARGO TONS	MAIL TONS	ROUNDTRIPS
1950	8188	892.2	154.3	262
1951	19,348	1329.1	206.3	331
1952	20,340	1101.8	274.3	453
1953	24,283	1226.3	199.7	437
1954	12,877	506.9	300.6	175
1955	14,975	917.1	237.4	197
1956 (Aug)	8187	314.9	122.5	85
TOTALS	**108,198**	**6288.3**	**1495.1**	**1940**

NOTE: *The importance of the Mars to the Korean War effort is clearly underscored by the loads carried during that time period.*

be put into place with the new JRMs that were on the Martin production line. New crews would have to be rapidly trained but, because of the pressures of war, transport flights would also be conducted by VR-8 and these were mainly flown between NAS Patuxent River and NAS Bermuda.

The newly-modified flying boat was delivered to VR-8 on 27 November 1943 and immediately went to work. Lieutenant Commander William E. Coney and his crew launched on 27 November with a 13,500-lb payload and went non-stop to Natal in Brazil in a flight that took 28-hrs 25-mins over a route of 4375 miles. However, it was obvious that the Mars would find its home in the Pacific and VR-2 was established at NAS Alameda on the San Francisco Bay. During the first month of 1944, the Mars winged its way to the West Coast.

The island-hopping war was in full swing and vital supplies such as whole blood were needed. The Mars went to work and began its airline-like schedule between Alameda and Honolulu, overflying the Golden Gate on what was (and still is) the longest route without an alternate airfield (even though the Mars did not require a runway). The round-trip flight covered 4700 miles and on its first trip, the prototype lifted 20,500-lbs of cargo on a westward flight that took 27-hrs 26-mins. The XPB2M-1R was a very different aircraft from production Mars and spare parts were a problem, these often having to be hand-crafted. The horrible casualties caused by the invasion of Iwo Jima really highlighted the worth of the Mars and the aircraft would in a single month lift 120 tons of whole blood that would find its way to hospitals and battlefields.

As the newer aircraft became available, the prototype was withdrawn from service during March 1945 and beached at Alameda. In April 1945, it was made airworthy and flown to Martin where it was used for JRM-1 crew training. After that, it became a maintenance trainer until 1949 and

NAVAL AIR TRANSPORT SERVICE

After the lengthy run down the West Coast, *Philippine Mars* turns east for the run-in over the Golden Gate Bridge to enter San Francisco Bay for landing.

was thought to have been scrapped although we have not been able to find photos of the event. Whatever happened to the pioneering flying boat, it had transported over three million pounds of cargo and personnel during a basically trouble-free operational career.

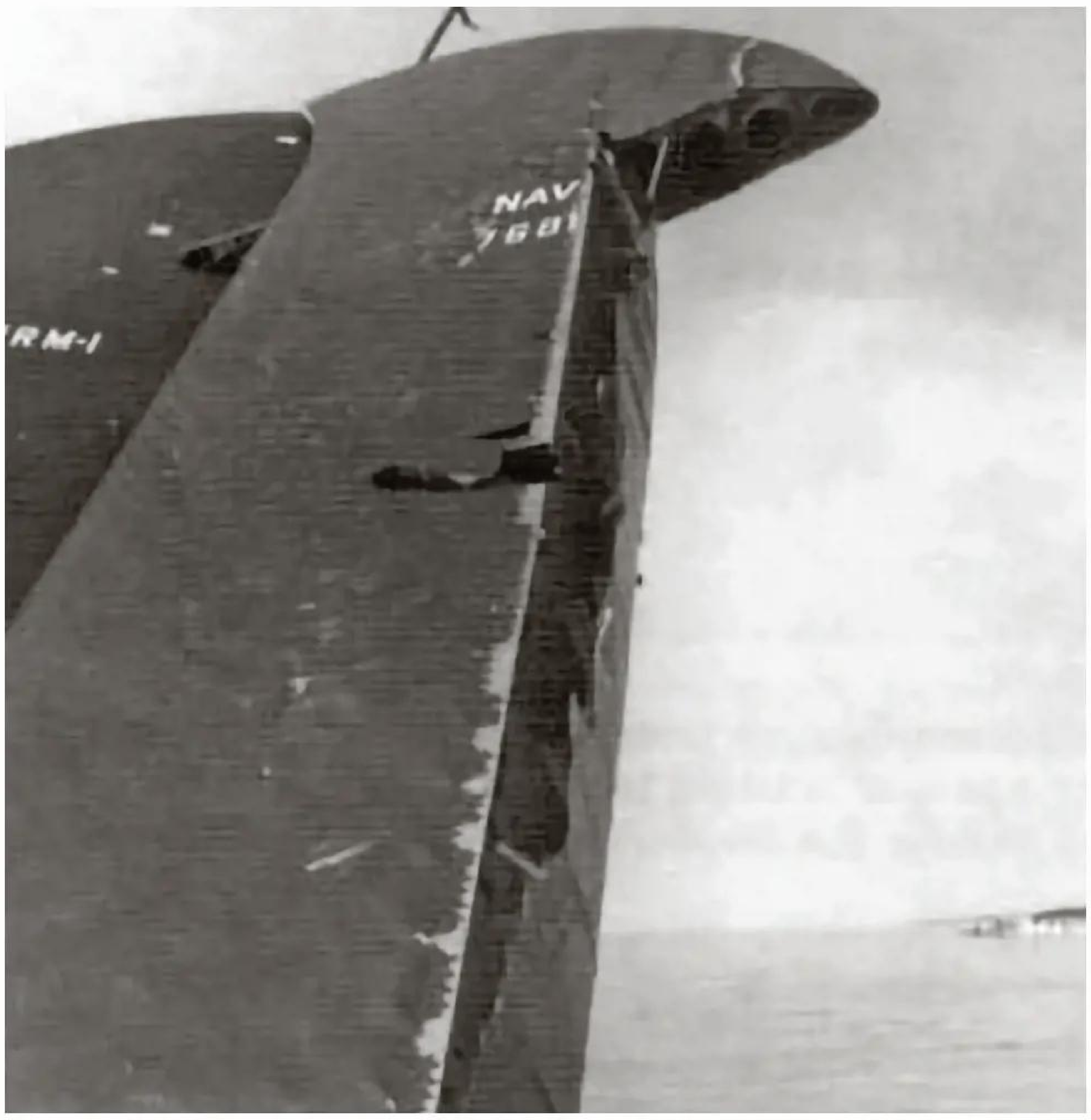
The second *Hawaii Mars* announces its arrival at Lake Elsinore in southern California.

HAWAII MARS BuNo 76819

To say that the first production JRM-1 Mars had a short career would be an understatement. The aircraft was completed in record time and was finished by June 1945. At this point, it was obvious that the war was going in the favor of America but it was equally obvious that the invasion of the Japanese Home Islands would be a long and costly affair thus the capabilities of the Mars would be needed. No one at Martin was aware of what was developing in the desert wastes of New Mexico.

JRM-1 BuNo 76819 went into the water during late June 1945 and made several test hops before being christened *Hawaii Mars* and launched on 27 July. The Navy wanted the Mars in the Pacific as quickly as possible so flight testing was stepped up but disaster struck on 5 August 1945.

The plane had climbed to 6000-ft when violent vibrations passed through the fuselage. The pilots reduced power and began to descend but the vibrations continued and control started to be lost as an emergency landing in the Chesapeake Bay off Virginia Beach was attempted. Pitching up and down, pieces began departing the airframe and the *Hawaii Mars* was nearly out of control when it contacted the surface of the water in a nose-down attitude. The plane broke part but the ten crewmen managed to escape with minimal injuries.



Detail view showing how the entire leading edge of the vertical separated from the vertical tail leading to *Hawaii Mars'* loss of control.

It did not take long to find out what had happened. The entire leading edge of the vertical

NEXT SPREAD: **The late afternoon sun highlights the Mars as it nears San Francisco. The plane had picked up a tailwind and this would occasionally boost the cruising speed to 170 knots while the radials were burning approximately 300-gph. As the Mars began to descend, we passed over numerous small pleasure and fishing boats whose occupants were looking up at the strange sight in the sky.**

JRM-1
NAVY
76820
NAVAL AIR TRANSPORT SERVIC

PHILIPPINE MARS

The Big Four: JRM-3s *Philippine Mars*, *Hawaii Mars*, *Mariana Mars*, and *Caroline Mars*.

tail had come off in flight and this caused the plane to go out of control. There were immediate questions about sabotage but nothing was proven and it appears that the accident was caused by poor manufacturing and lack of competent inspection. The wreck was recovered, but the plane was a complete write-off.

It should be noted that Alameda to Hawaii and return was not the only route for the Mars fleet. With the end of the war, Navy created a route that would take the Mars from Hawaii to Saipan. This was an extremely difficult flight that involved five long legs. The first was, of course, Alameda to Honolulu. Then came from Honolulu to Majuro in the Marshall Islands for a distance of 1973 nautical miles. Then 1560 nautical miles had to be flown to Saipan. For the return, a Mars would go 1443-nm to Sangley Point in Manila and then to Honolulu and Alameda. This route did not get as much publicity as the Hawaii run nor was it used as often.

After the first full year of operation, R/Adm. John Reeves, commanding officer Naval Air Transport Service, stated, “The Mars carried 3.5 to four times as much as cargo as the largest land-based aircraft used on the Alameda/Honolulu route in only 3.5-hrs greater time. The Mars used 30% less fuel per ton mile than any other current transport while having a useful load of 49% gross weight, which was 10% higher than any other land-based transport.” The Mars had made its mark.

US NAVY PILOT NOTES FOR THE MARS

A LOOK AT HOW THE MARS WAS FLOWN COMPILED FROM THE ORIGINAL JRM-1 FLIGHT MANUAL - **BY JOE SCHEIL**

Original crew for the Mars consisted of eleven men: Plane Commander, First Pilot, Second Pilot, Navigator, Flight Engineers, Assistant Flight Engineer, two Flight Mechanics, two Radio Operators, and an Orderly.

1-8. ELEVATOR AND RUDDER CONTROLS. A hydraulic booster system assumes about 75% of the force required to move the elevators and 8% of the force to move the rudder. There are two electric hydraulic pumps that that power the system; it is variable pressure with a “no load” pressure of 100-psi to a maximum of 1500/1600-psi at full load. During takeoff and landing, both pumps will be operating but during normal operation just one pump will be running with the other in standby.

I-12. WING FLAPS. These are hydraulicly operated as well via a switch on the right side of the pilot’s pedestal. Moving the switch to DOWN to lower, and return the switch to OFF when the desired angle is reached. Maximum flap angle is 40 degrees. The Takeoff-Approach position is set at 20 degrees down. After each complete up and down operating cycle of the flaps allows three minutes for the system to cool. System pressure is 1350/1500-psi.

For the JRM-1, engines are R-3350-8 with Curtiss Electric controllable pitch and full feathering propellers. Both inboard propellers are reversible, guarded by a reverse safety switch on the pedestal.

Fuel for the JRM-1 is carried in six integral fuel tanks in the lower hull that feed into two wing service tanks:

Forward Hull (2):
Metal tanks - 5240 US gallons
Center Hull (2):
Metal tanks - 2880 US gallons
Rear Hull (2):
Metal tanks - 2880 US gallons
Wing Service: Maeng. - 1220 US gallons
TOTAL CAPACITY: 13,220 gallons

For normal operations, fuel flows from the wing service tanks through the engine selector valves to the engines. The hull transfer pumps automatically refill the wing service tanks when the fuel level drops to 525 US gallons. *If general cargo is carried, fuel must be used from one forward tank, 2 aft tanks, and three middle tanks. If troop and casualty loadings are carried, fuel must be taken from one aft tank, two middle tanks, and three forward tanks to remain in CG.*
There is an APU, and it is important to note that engines are never to be started from the batteries.

Structural Limitations:
145,000-lbs do not exceed 2.80G
155,000-lbs do not exceed 2.71G
Do not exceed 115 KIAS with flaps extended, do not exceed 100 KIAS with full rudder displacement.

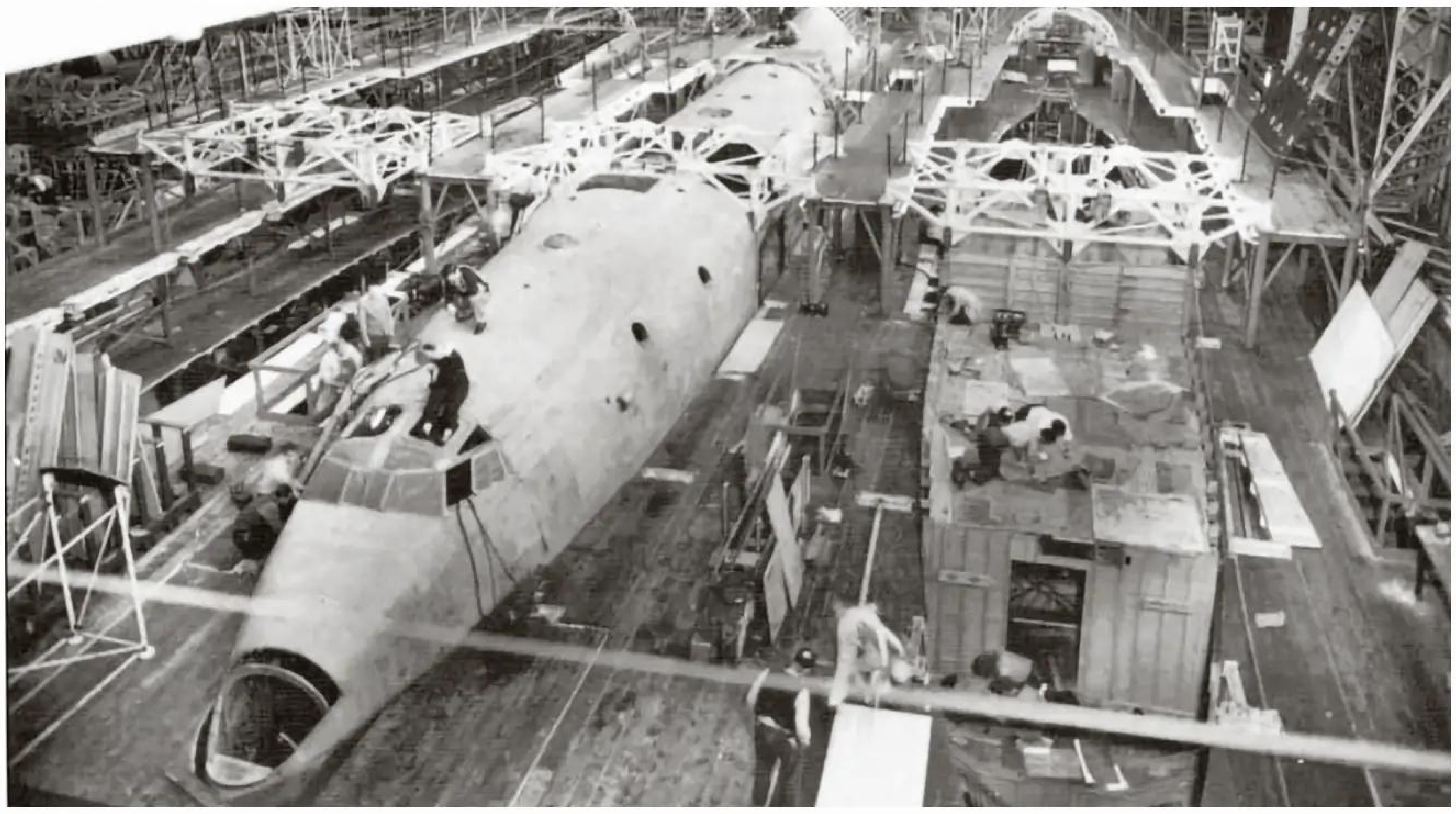
On its first visit to southern California as a fire-bomber, *Hawaii Mars* touches down on a very smooth Pacific directly in-front of Malibu beach. There was some speculation regarding the disastrous fires of early 2025 on whether the Mars could have done any good is suppressing the firestorms that destroyed Malibu and Pacific Palisades. The big problem would have been the 75-mph winds and if such wind would have prevented the Mars from operating. If the flying boat had been able to attack the fires, the nearly instant turn-around time would have gone a long way to stopping the conflagration.

PHILIPPINE MARS BuNo 76820

Philippines Mars was next up and because of the loss of *Hawaii Mars*, testing was speeded up and after company flight testing, the Navy took delivery of the aircraft in August 1945 and its own testing was accelerated so that the aircraft could get to VR-2. However, the war was soon over but the Mars still had a significant mission and this is when VR-2 set up its airline-like schedule from Alameda to Hawaii. As with any new aircraft, there were problems and one of those was particularly dangerous. This took place when the #1 R-3350 completely ripped lose from the wing after the propeller threw a blade. Fortunately, the crew kept control and continued to Honolulu for a successful landing. *Philippine Mars* would be utilized for JATO testing and the aircraft would have a distinguished career before being retired. However, few realized this career would continue in civil hands and that can be found later in this story.

MARIANAS MARS BuNo 76821

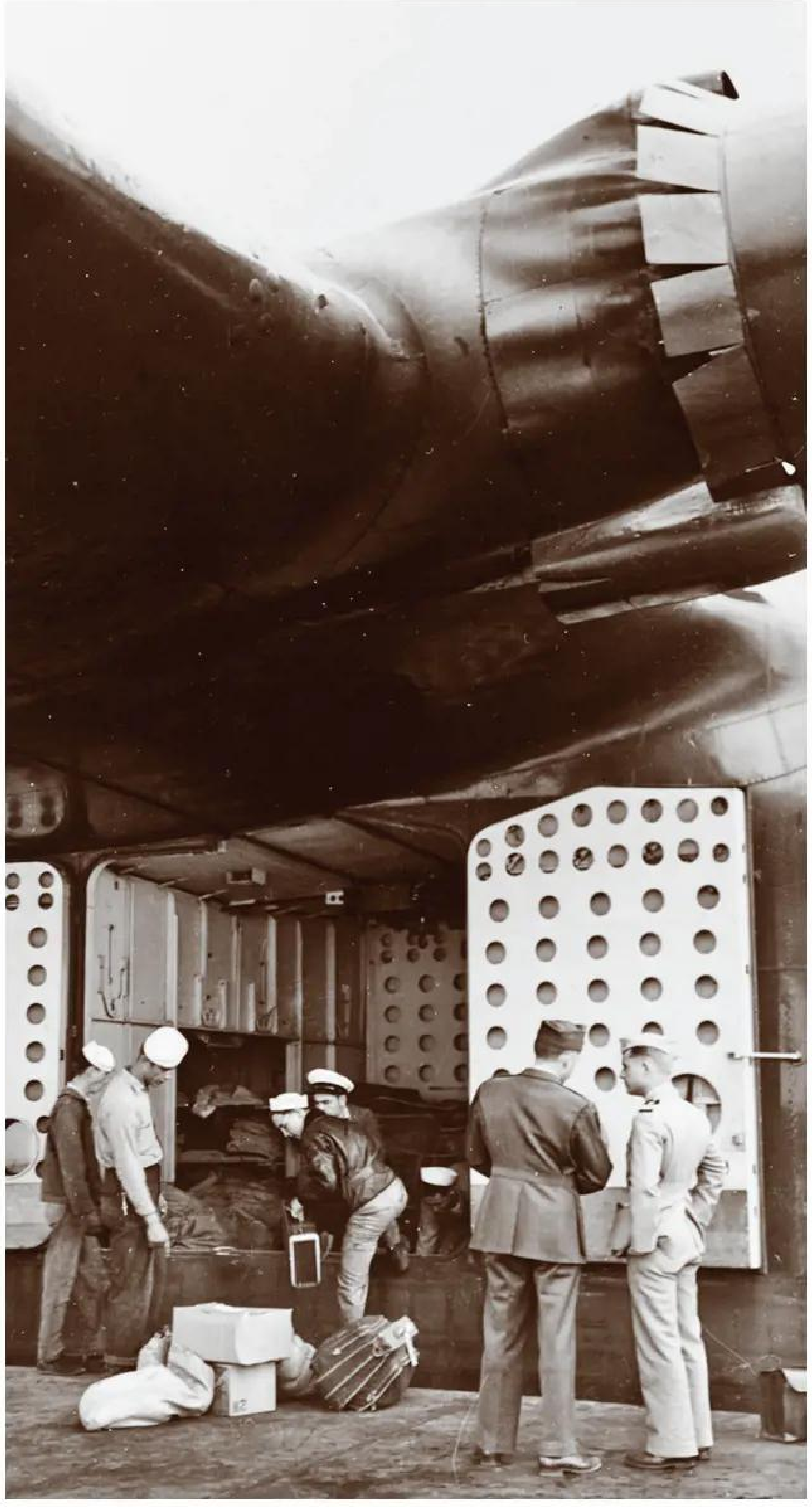
Martin handed *Marianas Mars* over to the Navy during May 1946 and it flew cross-country to NAS Alameda and immediately went to work on the Alameda-Honolulu run with VR-2. As with the other Mars, the type was subjected to continuous upgrades including the ability to utilize JATO for heavy-weight takeoffs. *Marianas* proved to be a very reliable aircraft. It would also become the last Mars to be retired by the Navy but its career was not done.



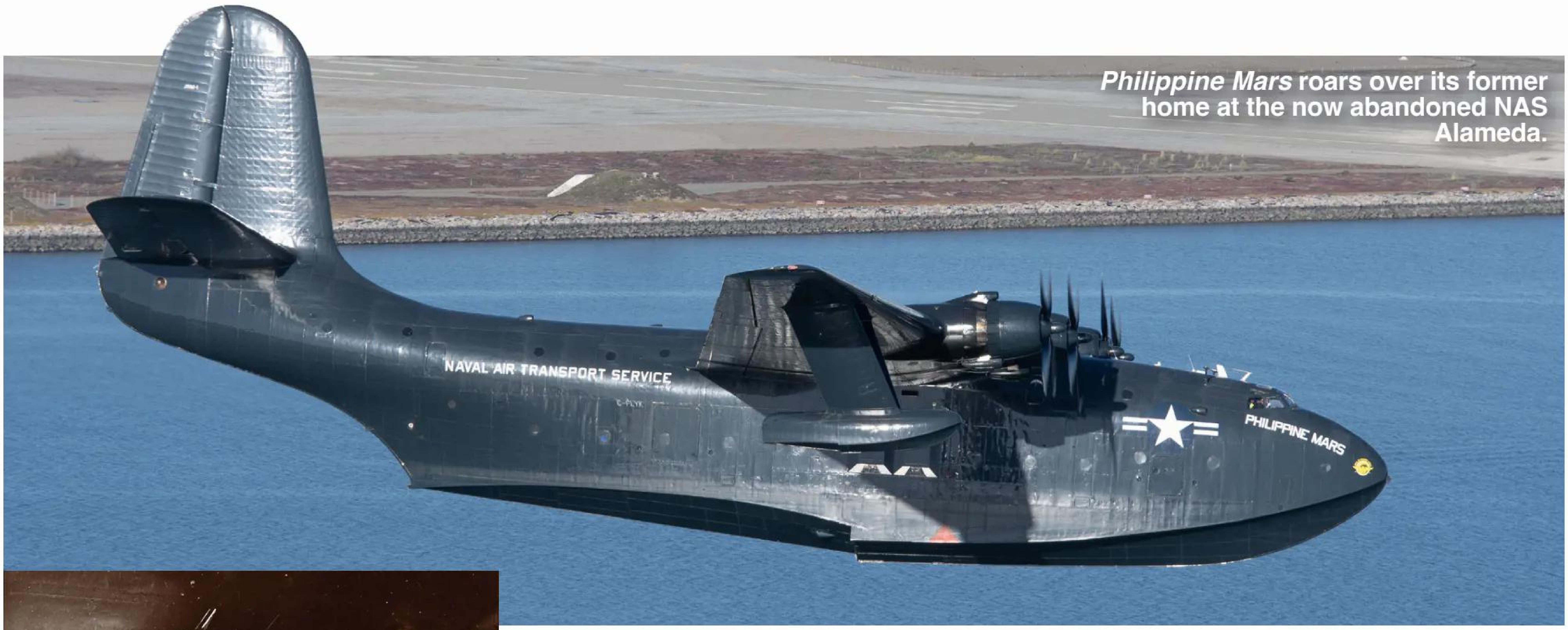
***Philippine Mars* under construction in Building B.**

MARSHALL MARS BuNo 76822

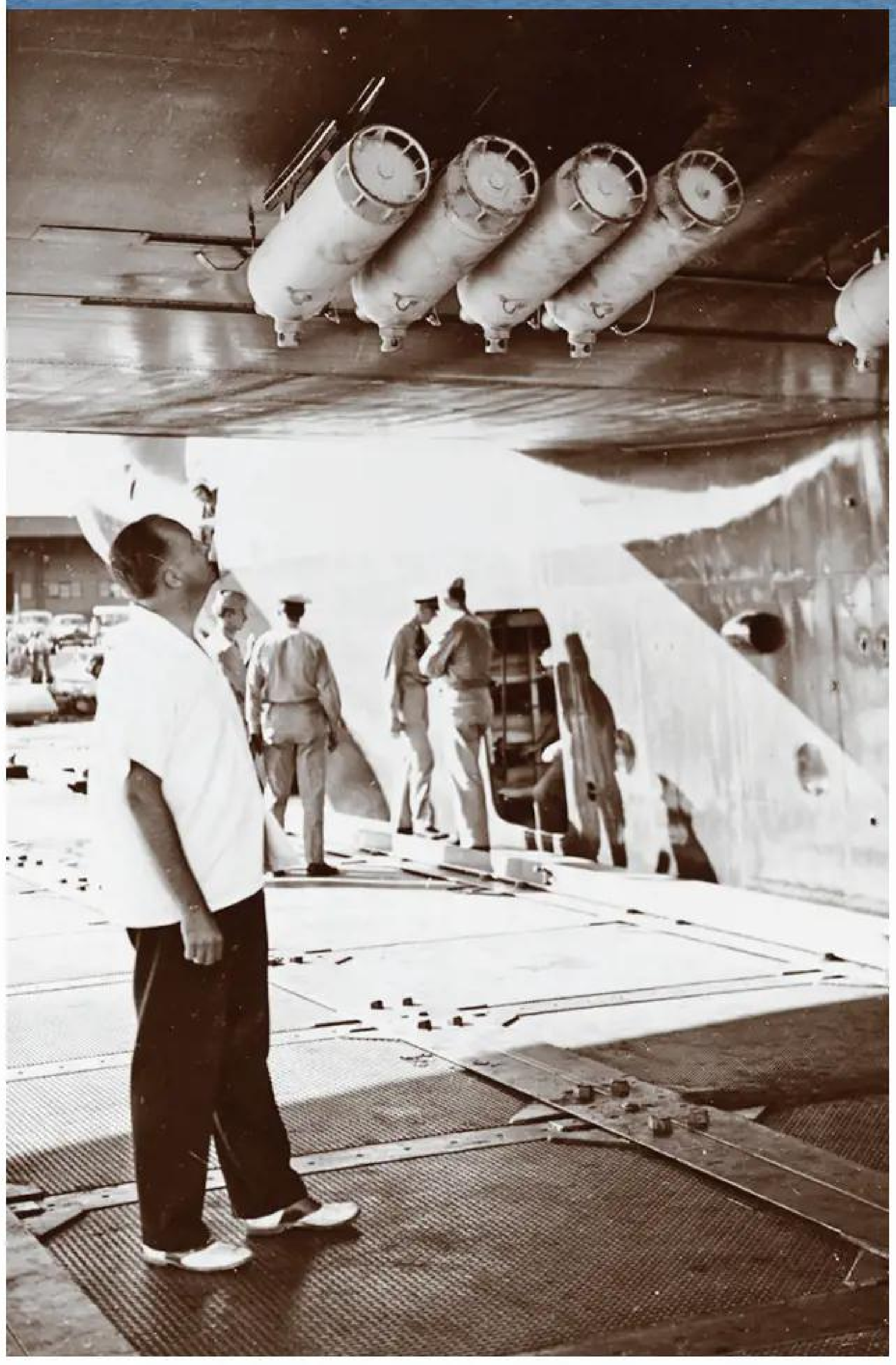
Marshall would also be another distinguished Mars but it would also, unfortunately, have a short life. With Mars test flights being undertaken, *Marshall* was the first Mars to be received by VR-2 and this was part of a plan to start an efficient six-week training course for crewmen. This training was done at the factory and then after a few check rides, the new crew would take their aircraft to NAS Alameda. *Marshall* went to work on the Hawaii run and on its second flight it uplifted 27,427-lbs and this broke the 1944 XPB2M-1R record. *Marshall* got a lot of international publicity during November 1948 in a flight that was known as Operation *Hayride*. The SS *Swarthmore Victory* was at sea when engine problems brought the ship to a halt mid-Pacific. Part of the ship's cargo consisted of elephants and lots of tropical birds. All the animals were headed to zoos but they had eaten all the food aboard. *Marshall* brought in tons of



Baggage being unloaded through the large cargo doors of the *Philippine Mars*.



***Philippine Mars* roars over its former home at the now abandoned NAS Alameda.**



JATO bottle attachment to *Philippine Mars*.

hay and containers of worms on a 1500-mi flight, thus saving the animals.

On 19 May 1949, *Marshall* set a passenger record when it uplifted 301 sailors from Carrier Air Group 5 and seven crew for a flight from Alameda to North Island. Around 100 sailors were left over and they were transported the same day aboard *Philippine*.

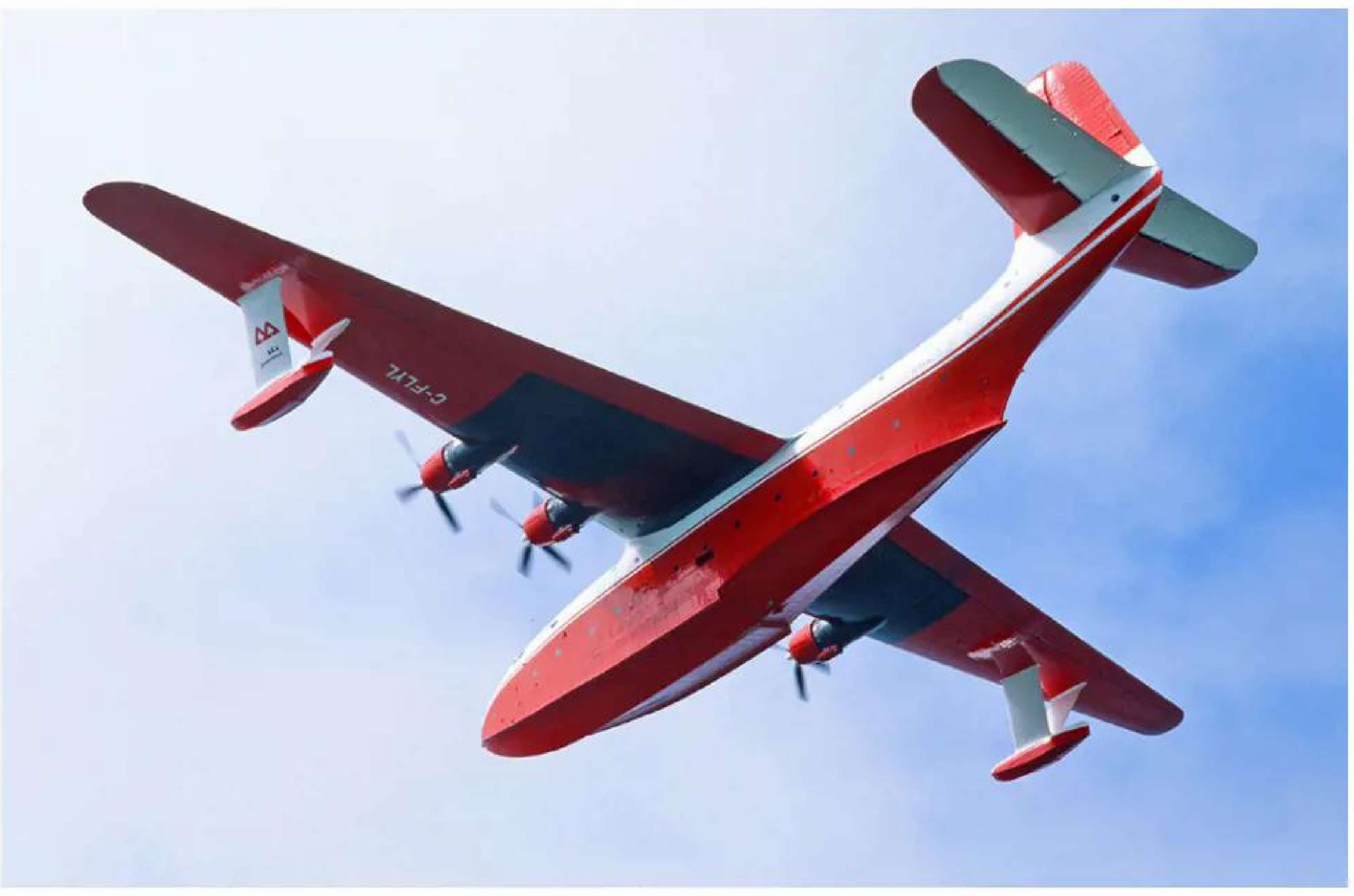
On 5 May 1950, disaster struck. The plane had an engine change and, as typical, it underwent a short test flight. As the Mars lifted off, fire broke out in #3 and the crew activated the fire bottles but the flames could not be stopped and the fire entered the wing structure. Knowing this could cause wing failure, the crew radioed Pearl they were going to make an emergency landing near Diamond Head. A rescue launch set out and met the *Marshall*. The crew had gotten out of the plane and was attempting to stop the flames when the launch pulled alongside and began directing water onto the plane but this did not do any good. The crew got in the launch, which pulled away as the fire spread. The flames hit the fuel tanks and *Marshall* exploded and sank.

HAWAII MARS BuNo 76823

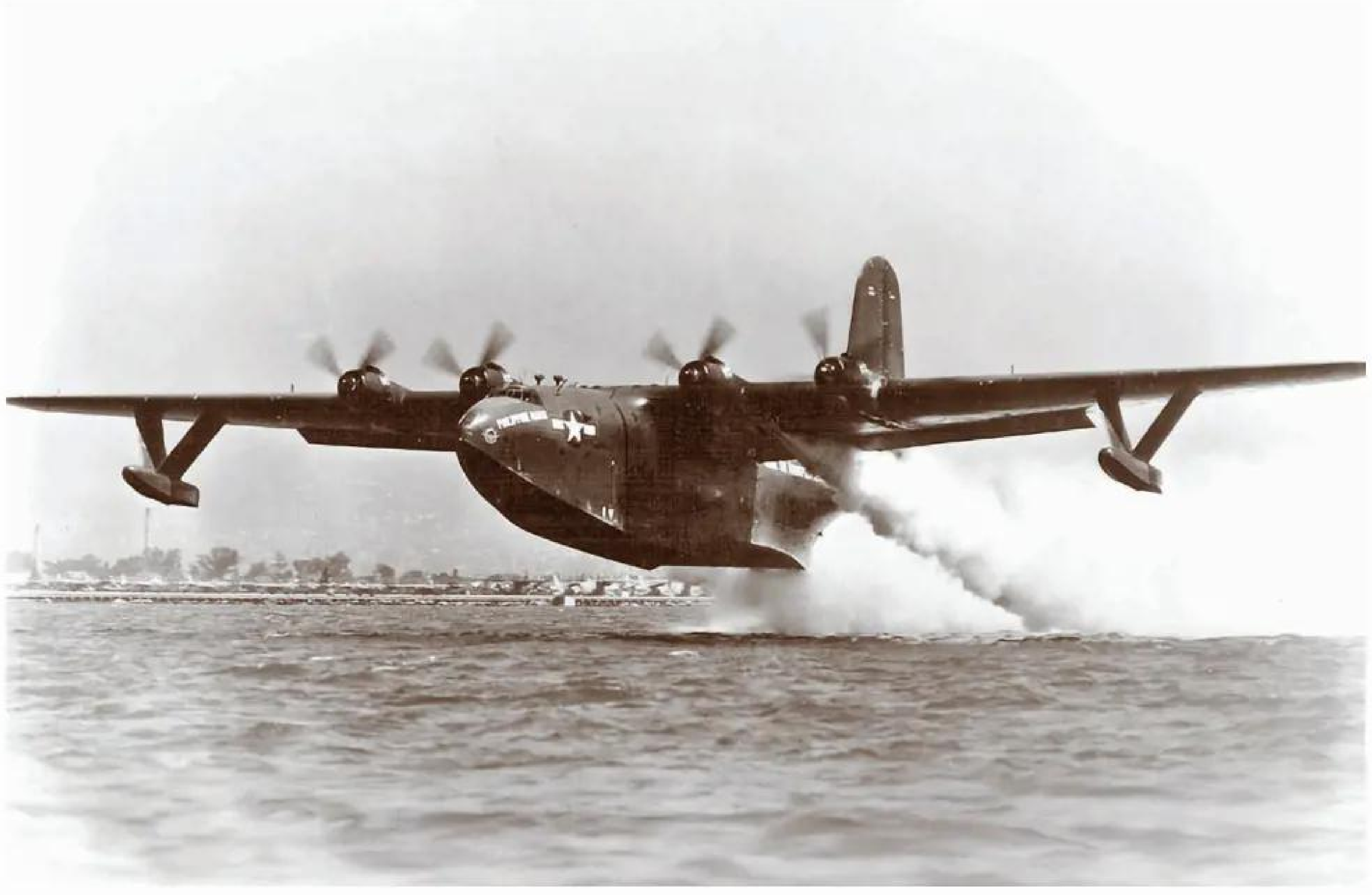
Sometimes referred to as *Hawaii Mars II*, this aircraft was a replacement for the original, which was lost on 5 August 1945. As soon as *Hawaii* was received by VR-2, it went to work. Some 35,000 pounds of cargo was loaded aboard and it headed to Honolulu during April 1946. After off-loading, the interior was reconfigured as an air ambulance and 100 stretcher patients were brought aboard, many having been badly injured during the war. Twenty medical attendants accompanied the men and both flights took place within 48-hrs. These set records for heaviest payload, most stretcher patients, and most passengers. *Hawaii*, as with the other Mars, would receive in-depth overhauls at NAS Alameda. The Mars fleet would have numerous changes to its paint schemes over the years and these are illustrated in the photos. As we shall see, *Hawaii* would go on to have a most distinguished civilian career.

CAROLINA MARS BuNo 76824

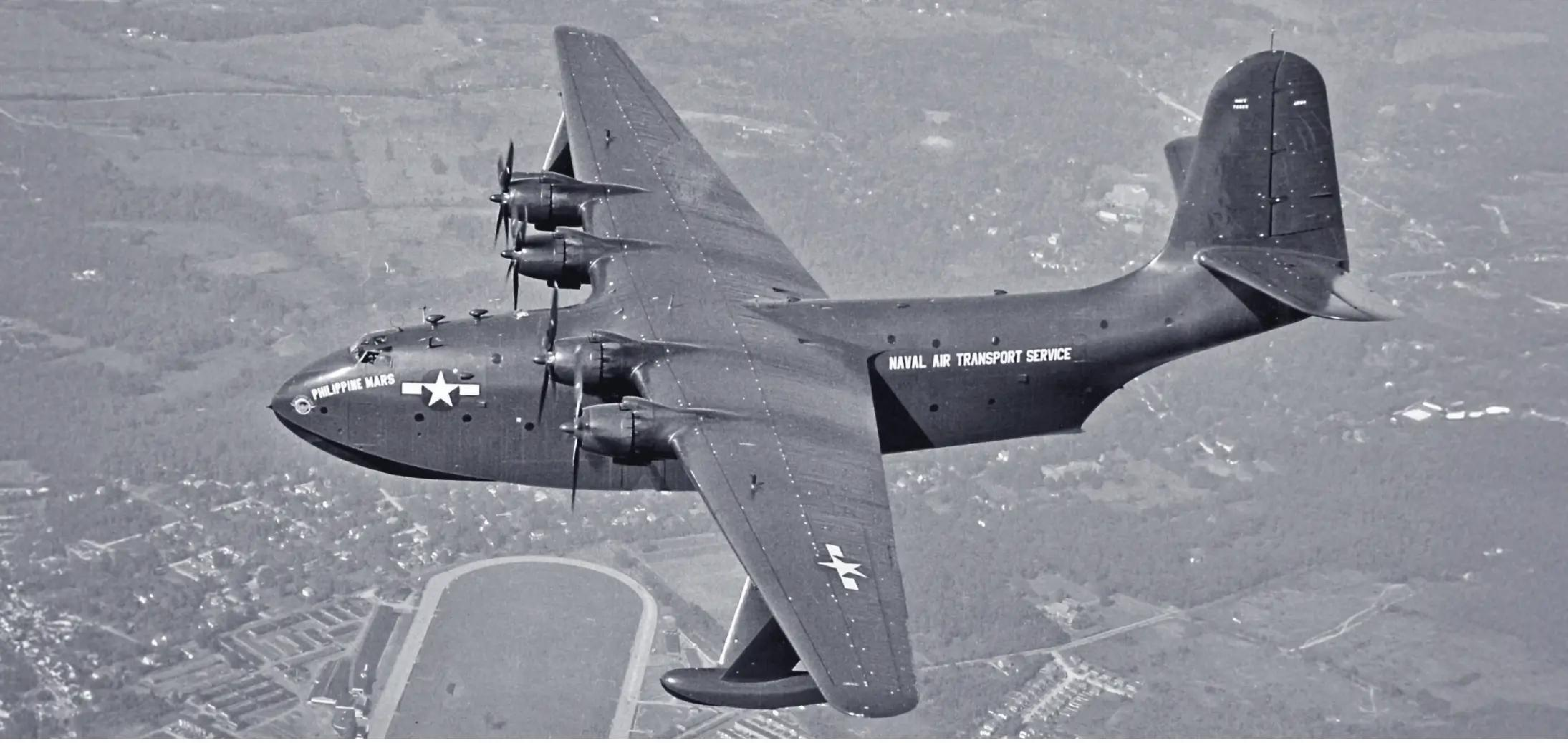
As the final Mars built, it is appropriate the *Carolina* had the most changes. Delivered in July 1947 and designated JRM-2, *Carolina* was fitted with Pratt & Whitney R-4360-4T radials of 3000-hp each. Under cowls that looked a lot like those used on



High-angle view of *Hawaii Mars* shows the aerodynamic lines of the hull to advantage.



For overload situations, *Philippine Mars* is seen utilizing JATO bottles.



Fine portrait of the *Philippine Mars* in flight wearing Naval Air Transport Service (NATS) markings.

the Goodyear F2G Super Corsair, the JRM-2 had its gross weight increased by 20,000-lbs to top off at 165,000-lbs. Performance went up accordingly and this can be seen in the specification sidebar. After company flight testing, the JRM-2 went to NAS Patuxent River for extensive flight work during May 1948 and it headed off to VR-2. It should be noted that the craft had been finished in Naval Air Test Center (NATC) markings and operated with these while flying with VR-2 until time came for overhaul and repaint.

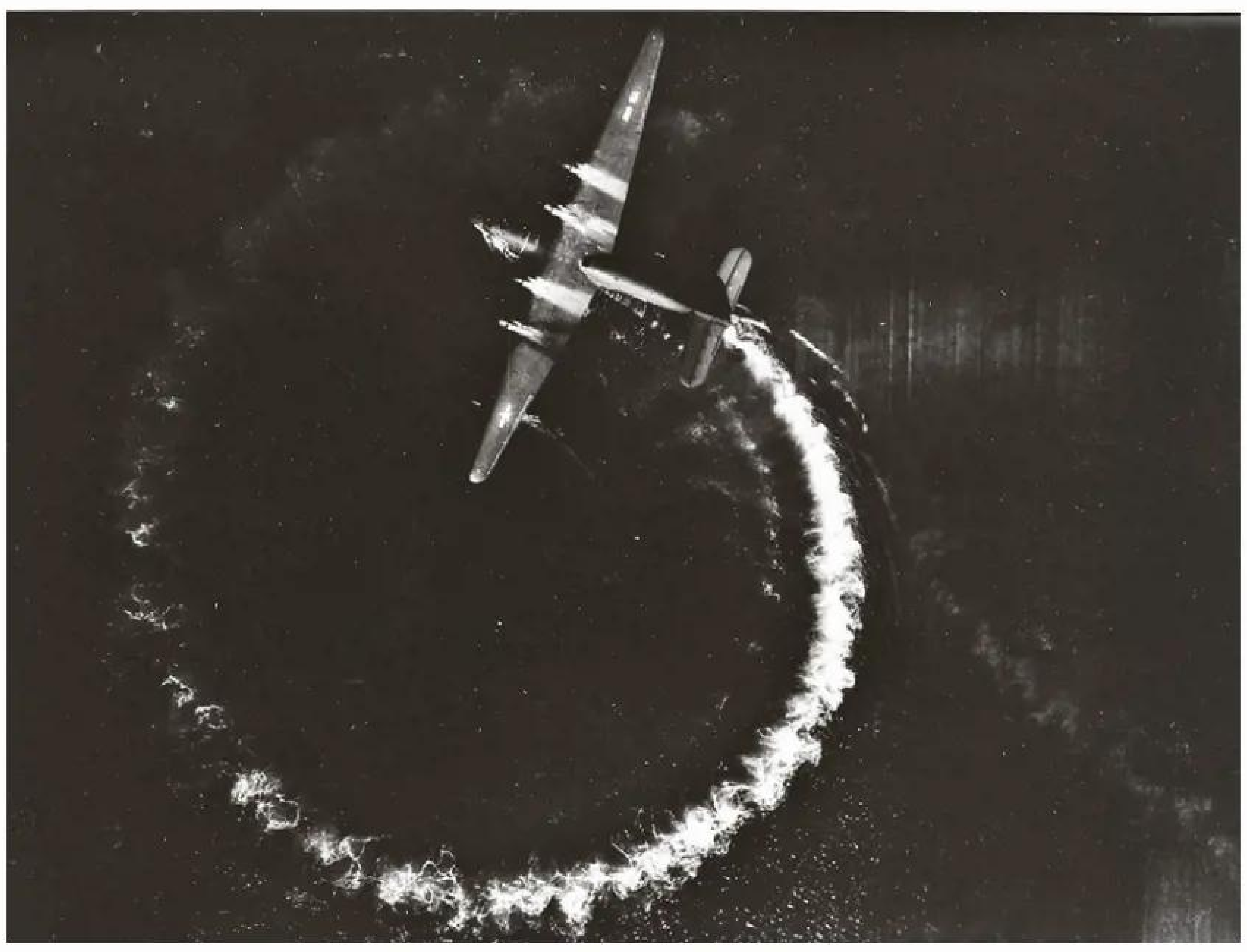
PHILIPPINE MARS

During an FIFT training flight, two of the R-3350s are shut down and the props feathered on *Philippine Mars*.

OFF TO THE RACES

The post-war Cleveland National Air Races featured not only a blend of various categories of racing aircraft but also a massive selection of American aeronautical military might. It was only natural that the US Navy and Martin would want to show off the Mars to the tens of thousands of eager spectators that flocked to Cleveland.

The Navy decided to pull out all stops with the new JRM-2 *Carolina Mars* fitted with four Pratt & Whitney R-4360 radials turning Curtiss-Electric four-blade props that were 16-ft 8-in in diameter. Commander James G. Lang was the skipper of VR-2 and he would oversee several record-setting flights while L/Cmdr. Robert J. Hunt would be plane commander. On 27/28 August,



***Philippine Mars* demonstrates its extremely tight turning radius.**

NAVAL AIR TRANS
PHILIPPINE MARS

One has to wonder what the crew of this Chinese freighter thought — if anything — as the *Philippine Mars* passed overhead.

Passenger seats in place in the interior of the *Marianas Mars*.

The JRMs had extremely spacious cockpits for the crews as can be seen in this view aboard *Marianas Mars*.

SPECIFICATIONS JRM-1/JRM-2

	JRM-1	JRM-2
Span	200-ft	200-ft
Length	120-ft 3-in	120-ft 3-in
Height	44-ft 7-in	44-ft 7-in
Wing Area	3663-sq-ft	3663-sq-ft
Hull Beam	13.5-ft	13.5-ft
Hull Draft	5.5-ft	5.5-ft
Hull Height	20.5-ft	20.5-ft
Crew	11	11
Fuel	13,220-gal	13,220-gal
Oil	520-gal	520-gal
Max Speed	222-mph	238-mph
Cruise Speed	158-mph	173-mph
Landing Speed	98-mph	100-mph
Gross Weight	145,000-lbs	165,000-lbs
Propellers	Curtiss-Electric 15-ft 2-in	Hamilton Standard 16-ft 8-in
Powerplant	R-3350-18/2400-hp	R-4360/3000-hp

Carolina Mars undertook a flight that began in Honolulu while carrying a payload of over 14,000 pounds. The flying boat headed to Chicago where it landed in the lake directly in front of the famed city skyline. VR-2 would operate all of the JRM-1s and Cmdr. Land commented on the JRM-2: “With its 3000-hp engines, the JRM-2 has a substantial payload advantage over the R-3350 JRM-1 on the Alameda/Honolulu run. With the JRM-2, we can carry a 38,000-lb payload compared to the JRM-1’s 20,000-lbs.”

The arrival of the JRM-2 on Lake Michigan was timed to the very popular Cook County Fair. The non-stop 4748-mile trip saw the JRM-2 average 193-mph and this was against an average 7-mph headwind on the 24-hr 9-min flight while carrying a payload a bit over 14,000-lbs. Vice Admiral John D. Price, Deputy Chief of Naval Operations, stated “Squadron VR-2 with its 145,000-lb JRM-1 flying boats, has provided outstanding evidence of the significant role which large flying boats can play in meeting the logistic needs of national defense. Requiring no prepared forward bases — they can carry their own docking facilities if necessary — the flying boats can provide air lift in large tonnage volume with efficiency and economy of operation and complete mobility as to bases. Carrying even larger loads than its sister ships, the *Caroline Mars* in cargo service will provide an important boost to the total air lift available in the Pacific, where VR-2 Mars flying boats have shouldered virtually the entire airborne fleet supply load, permitting the use of large additional numbers of land-based planes in the Berlin supply operation. The Navy has developed large cargo aircraft of this type to meet the mobility and supply requirements of modern military operations.”

One must remember that while the County Fair and the 1948 National Air Races were going on, so was the vital Berlin Airlift — Operation *Vittles*. The communists had closed off all land supply routes to West Berlin and the Allies had to mount a massive airlift to keep the free city from starving. Every type of aircraft was utilized to keep the city supplied with food, fuel, and

NAVAL AIR TRANSPORT SERVICE
PHILIPPINE MARS

As ***Philippine Mars*** **heads toward the Golden Gate, the JRM-3 passes over the historic Pan American clipper terminal on Treasure Island, which was also the site of the 1939/1940 World's Fair.**

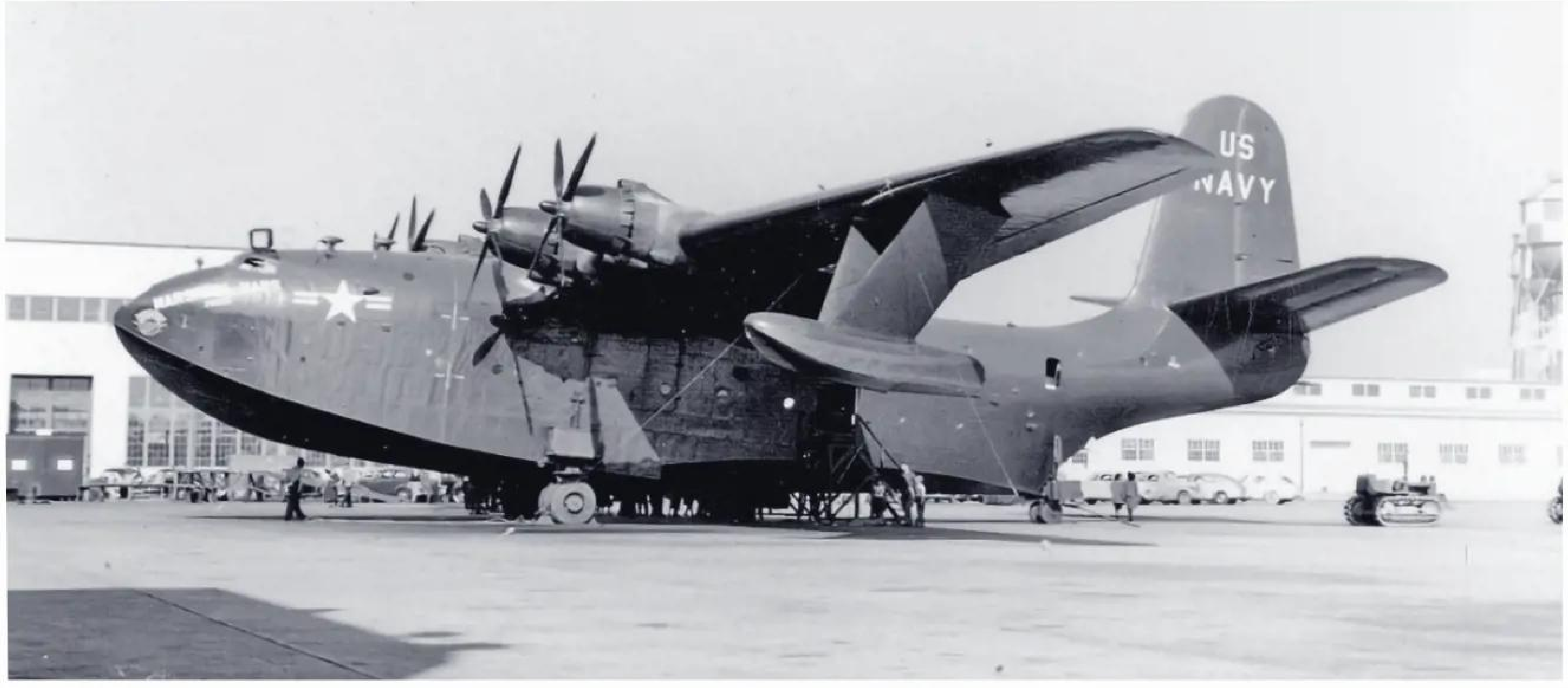
medical supplies. A variety of flying boats would land in Berlin's river and lake system so there was some thought that the Mars, with its huge cargo capability, should have been used in Operation *Vittles*. However, as can be seen, the Mars was vitally needed on the Pacific run to keep the fleet supplied.

When the JRM-2 arrived at Chicago, the Navy had positioned the aircraft's inflatable dock to use in conjunction with the fair. Personnel from the Glenview Naval Air Reserve had set up a booth at the fair and 40,000 visitors obtained tickets that allowed them to get into the Mars from the inflatable dock.

While at Chicago, the JRM-2 was serviced for its next record runs. The JRM-2 was then flown to NAS Patuxent River where a payload of 68,283-lbs was loaded through the 8-ft 3-in by 7-ft 8-in cargo doors. With the heavy cargo firmly secured, the JRM-2 took off on 5 September for the 390-mi flight to Cleveland, Ohio. The gross weight at takeoff was 165,000-lbs and on arrival, the *Caroline Mars* overflew the spectator stands before alighting on Lake Erie. This flight was the heaviest payload ever carried any distance. Admiral Price noted that the 390-mi distance and 68,283-lb payload compared with Berlin Airlift payloads of 7000 to 19,000-lbs in the aircraft regularly operating on Operation *Vittles*.

The JRM-2 would go on to perform during the Navy fly-over portion of the Air Races on Sunday and Monday afternoons before returning to Lake Erie for overnight anchorage. Admiral Price took the opportunity to note to the press that the use of the JRM-2 would release four or more C-54s to the Berlin Airlift. He also stated that since the JRM-1s went into service beginning in mid-1946, the Mars had flown four to five million passenger miles and 900,000 to 1,000,000 cargo ton miles per month.

The 1948 record setting was not over. When the races concluded, the JRM-2 was loaded with a 39,500-lb payload and on 7 September, Land, Hunt and the crew took off from Lake Erie in a 48-second run and made the 2100-mi flight to NAS Alameda, which again was the greatest load ever carried over that distance. It just the span of a few days, the JRM-2 made quite a splash and gained the Navy and Martin lots of favorable publicity. There would be more records for the *Caroline Mars* and on 4 March 1949, the JRM-2 took



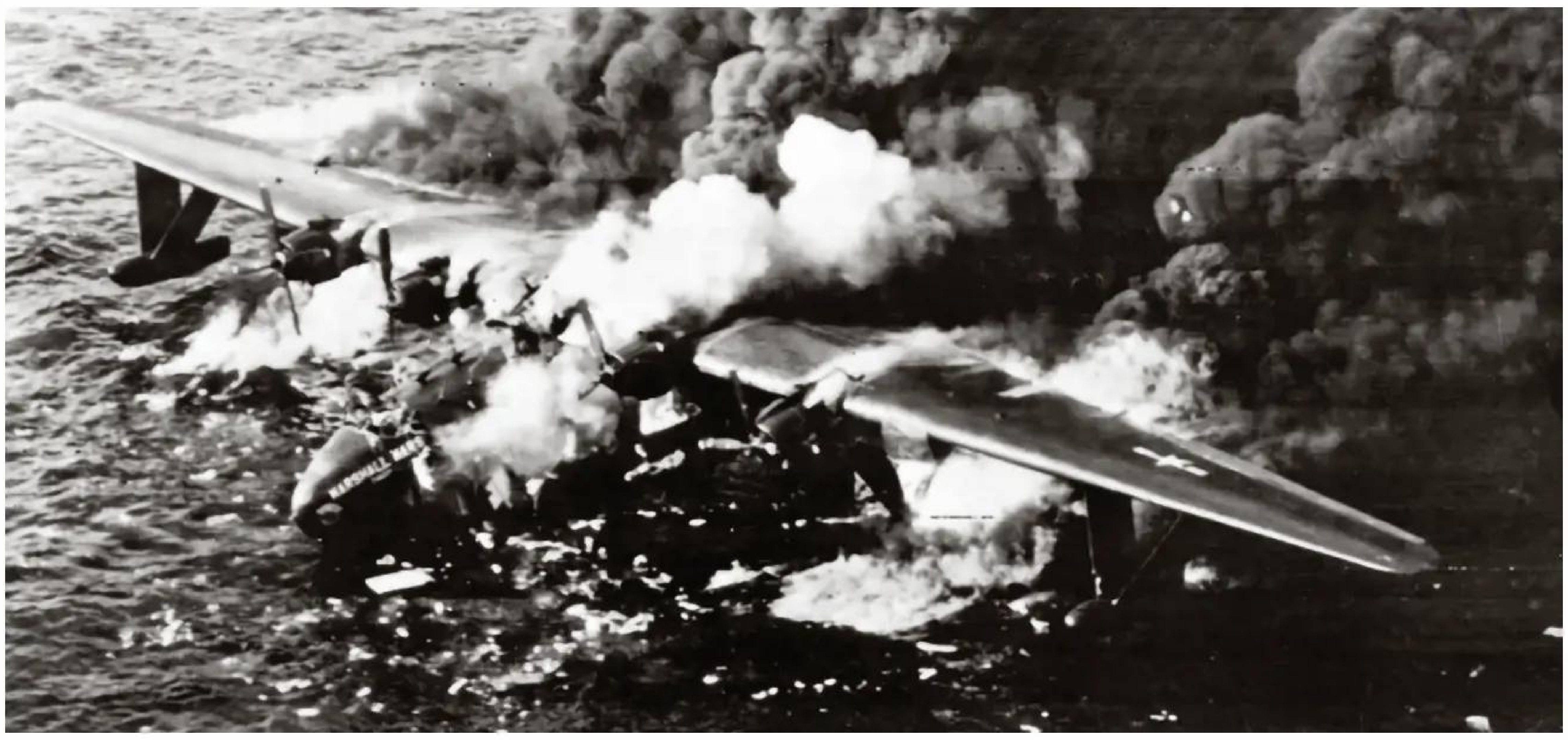
Marshall Mars **resplendent with a large US NAVY on the vertical tail.**

MARSHALL MARS
US
822

Sailors celebrate their flight in *Marshall Mars*.

NATS
NAVAL AIR TRANSPORT SERVICE
822

***Marshall Mars* in the foreground with another Mars at NAS Alameda.**

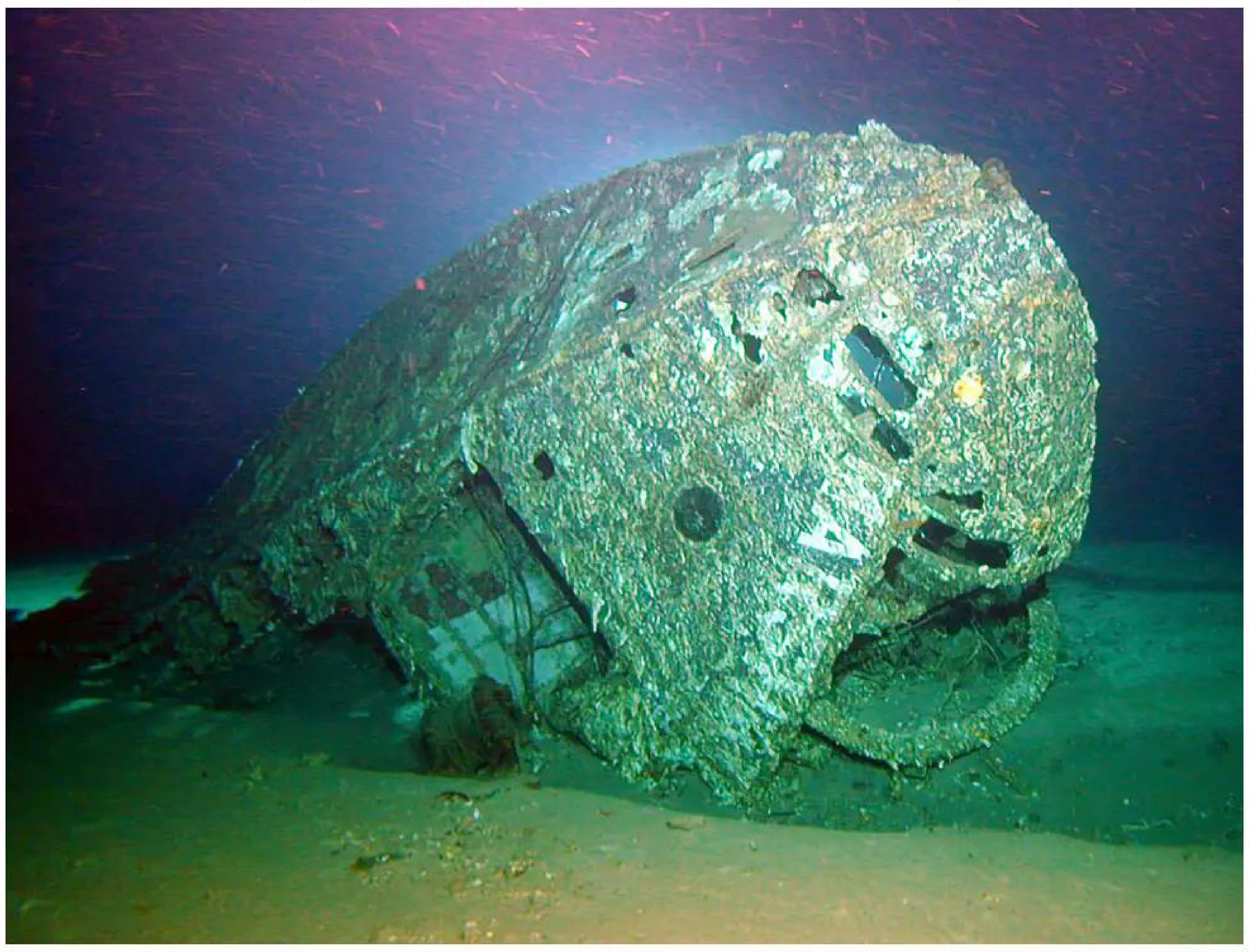


***Marshall Mars* on fire and shortly before the flying boat exploded.**

aboard 269 passengers and flew from San Diego to land in San Francisco Bay and taxi to NAS Alameda for unloading.

ALL GOOD THINGS...

The US Navy decided to retire the four surviving Mars flying boats. Even though the aircraft were providing efficient and valuable service, overhauls were getting more costly because of the constant operation in salt water. Also, there was a certain segment of the Navy that thought flying boats to be “old” and not a proper representation of a 20th Century Navy (few realized that the Martin P-5 Marlin flying boat would soldier on into the early 1970s). Accordingly, plans were put forth would see the “Big Four,” as the survivors had come to be known, retired. The *Marianas Mars* made the Navy’s last Mars flight and the event took place on 22 August 1956. Attached to its beaching gear, the Mars was pulled up the concrete seaplane ramp at NAS Alameda and parked next to its three sisters. Now, what to do with them? This was at a time when the US government was more than willing to sell retired military assets to civilians so the service (and government) could say that it was attempting to get some money back to the taxpayer. Today, the government is not letting anything out of Davis-Monthan unless it is in little bits of aluminum. A decision was made that the four Mars would be auctioned off but some of the Navy officers quietly chuckled amongst themselves — who in the hell would want the things?



The wreckage of *Marshall Mars* with the name still visible on the nose.

MAN WITH A VISION

During the 1950s (as well as today), a good part of Canada’s economy was based upon the nation’s vast timber reserves. There had been a series of disastrous fires that had destroyed thousands of acres of prime timber and this was a major blow to the timber industry on the nation’s west coast. Aerial fire-bombing had begun but it had yet to develop into an efficient way of combating major fires. On the light end, de Havilland Beavers could carry tanks of water aloft while on the heavier end, Grumman Avengers and Cansos (Canadian name for the Catalina) could uplift retardant and water. Still, these major blazes needed a heavier aerial response.

Dan McIvor was a pilot for MacMillan Bloedel (known as MacBloe), a major lumber concern. Don discovered that the four Martin JRM-3 Mars were intact, in relatively good condition, and for sale. He quickly came up with a plan on how the planes could be converted to aerial fire-fighters and presented his idea to the company. They turned him down. By now, the planes had been purchased by a scrap metal dealer who had paid $23,650 for all four and their days were numbered before being turned into aluminum ingots.

The scrapper was facing his own problems. The Navy wanted the first Mars gone from Alameda within 90

PHILIPPINE MARS
NAVAL AIR TRANSPORT SERVICE

On the later afternoon of 9 February, the *Philippine Mars* sets down for its final landing in San Francisco Bay.

HAWAII MARS

The second *Hawaii Mars* takes off.

The start of a new life for the Mars. *Hawaii Mars* was photographed at San Francisco International Airport after being sold surplus to the Canadians. Note the Short Solent in the background. (William T. Larkins)

days, the second 30 days after that, and so forth. Pleading with the scrapman, Dan convinced him to tow the first Mars across the Bay and park it at San Francisco International Airport.

McIvor came up with a second proposal. He also flew to California with two engineers from Fairey Aviation to inspect the aircraft. For whatever reason, this second proposal stuck and the company agreed to fund the purchase and conversion of the Mars into aerial tankers. The scrapper wanted $100,000 — the planes had cost the US government about $3.5 million apiece.

This was no easy deal. Dan had the company set aside another $100,000 to get one aircraft flying, ferry it to Canada, and convert the plane to a fire-bomber. In his business proposal, McIvor estimated that it would cost $60,000 per year to keep each aircraft operational and pay for a crew. His initial purchase included some spare parts that were crated and left around the parked aircraft.

He then found six engines and the company authorized their purchase for $135 each from the Navy. Another scrapper had 29 R-3350s but these were $600 each. He got them. Then, there was a find of 5000 new sparkplugs for a nickel each. Those went into the parts inventory. Along came a bunch of new cylinder heads at $15 each. Ditto on that purchase.

Then the Navy came up with the holy grail of Mars stuff — a row of crates 200-feet long by 20 feet high by ten feet wide. It was the entire Navy inventory of JRM spare parts. It cost the company $3200. With this horde came 44 filing cabinets packed with drawings, logs, maintenance records, and photographs that the Navy kicked in a few days later for free. All this was almost too good to be true.

With MacBloe as a major shareholder, a consortium of six other timber companies combined to create Forest Industries Flying Tankers (FIFT). The four survivors (three JRM-1s and the sole JRM-2) had been redesignated as JRM-3s because all four had been re-engined with Wright R-3350-24WA radials fitted with Curtiss-Electric four-blade 16-ft 8-in propellers.

A Canadian crew arrived and tore into *Marianas Mars* and flew it out on 8 August 1959. *Caroline Mars* departed on 27 August. *Philippine Mars* on 5 September and finally *Hawaii Mars* on 12 September. The flights of the four flying boats from San Francisco Bay attracted almost zero interest. All four Mars were parked at Patricia Bay.

Shortly after, McIvor and crew flew the *Carolina Mars* to Sproat Lake where it was used to train the crews that would be operating the planes. At Patricia Bay, the Fairey crew dug into *Marianas Mars* and removed all unneeded equipment. A huge fiberglass and Douglas fir plywood tank was built inside the fuselage that could 6000 gallons of water that would

***Hawaii Mars* on its final flight in company with the RCAF Snowbirds.**

Second *Hawaii Mars* with the Oakland Bay Bridge in the background.

be scooped by two retractable probes installed just aft of the step. New radios were added and the plane was given a bright red and white paint scheme.

Marianas was then flown to Sproat Lake for more training flights and to determine how the aircraft would best be used to deliver its payload. Because of the size of the Mars, FIFT decided to use a Grumman Goose amphibian to guide the bomber to its target and act as a spotter. Repeated flights determined that the best drop speed was around 100 knots and from between 150 to 200 feet. This would release a thundering cascade of water that would slam down on a fire in a long trail that would knock out the main blaze as well as the embers that caused further fires.

McIvor was the lead pilot for all these developmental flights but shortly before the start of the fire season he was undergoing a regular physical when he received news that his eyesight had dramatically gone downhill and was now below minimums. This meant that he would not captain the Mars on its initial fire season and that the mission would go to two less experienced captains.

LOSS OF YANKEE JULIET

On 23 June 1961, the crew of *Marianas* CF-LYJ made sure that their converted Mars was ready for what appeared to be a full day of operations. There was a fire going on in the area of Parksville on Vancouver Island and this was threatening the assets of the timber consortium. After taking off, the JRM-3 headed to the area of the fire and the four crewmen prepared for a drop. It is not known exactly what happened but it appears that the JRM-3 was in a slight climb up the side of the mountain when a wing caught a tree and the Mars cartwheeled and exploded. All four died. Although it could not be proven, one theory was that the water release mechanism did not work.

MAJOR BLOW TO THE PROGRAM

The crash meant that the conversion of *Caroline Mars* now had to be rushed forward. While this was going on, McIvor appealed the pulling of his license and after further tests he got it back. Thus, at the start of the 1962 fire season both *Caroline Mars* and Dan McIvor were ready to go to work. A fire broke out at the base of Cowichan Lake and quickly spread into the valuable timber. Dan and his crew launched and arrived at the fire, which was rapidly moving up the hills before the ground units had arrived. He laid down the first 6000 gallons atop the fire and then did six more scoops and drops. The fire was destroyed in less than an hour. Just two days later, a much bigger blaze started on Vancouver Island. Dan the Mars fought this one hard and it took 22 drops but the fire was killed and the Mars, Dan, and FIFT were suddenly Canadian heroes.

With the winter came another disaster. A strong storm hit Patricia Bay. *Carolina Mars* was firmly tied down but the winds of Hurricane *Frieda* were ferocious and she was pulled from her moorings and tossed around like a toy. Her back was broken along with other damage. Today, she may have not been scrapped but things were different in 1962. *Carolina Mars* was reduced to components.

Orders were given to rapidly convert *Hawaii Mars* and *Philippine Mars* but improvements were made from what had been learned. Along with the massive main tanks, another ten-foot 1000-gallon tank was added and this would contain a substance known as Gelgard. A powdered thickening agent, the Gelgard is added to the water to create sort of a foam that helps in compacting the water and aids in preventing evaporation. When dropped, the liquid now adheres to the trees and helps stop the fire.

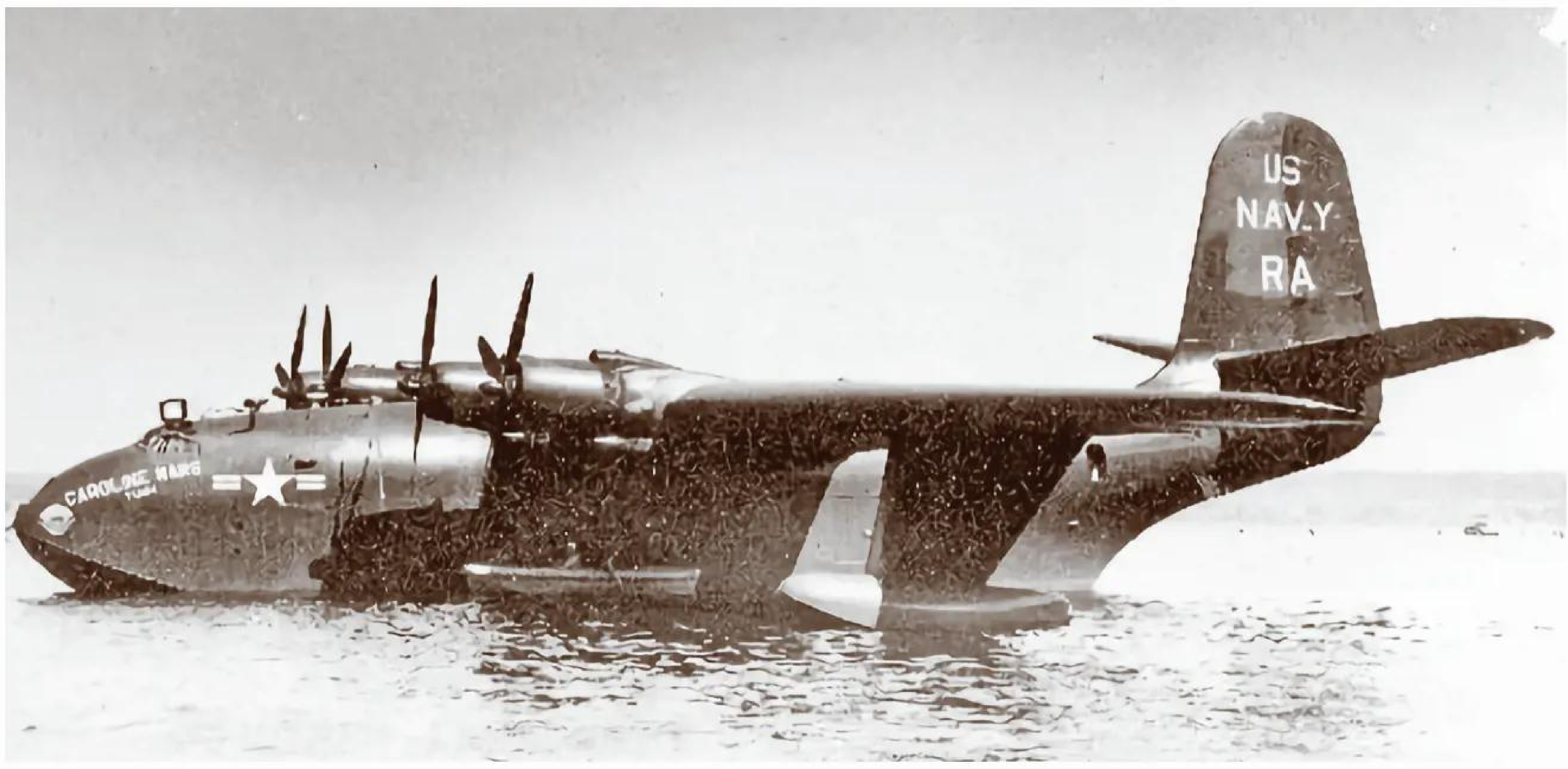
An historic image as *Philippine Mars* crosses the Golden Gate Bridge for the very last time.

AND THE REST IS HISTORY

The 1963 fire season started with both aircraft ready for duty but after all his hard work in developing one of the most effective aerial fire suppression systems, Dan decided to call it quits and joined Pacific Western Airways. However, from that point the two surviving Mars were called out on fire after fire. The Mars were never defeated.

After my initial fly-over of the base at Port Alberni, I contacted Tom Irving who was general manager for FIFT and a gold mine of information on the Mars and its operation. I flew up to Victoria in October 1987 and headed to Port Alberni and the FIFT base on Sproat Lake. Tom was just one of those types that you instantly like and after introductions it was time for a walk around the base and crawl into the Mars. Tom allowed that he was having problems with R-3350 overhauls and that last couple just weren't up to his standards. He wanted to know if I was acquainted with anyone that could provide a quality overhaul service. I did. I put Tom in contract with Bill Jones at Aircraft Cylinder & Turbine and that was the beginning of a fruitful relationship that spanned years.

I managed to set up some flights with the Mars next April when training was underway. Getting a camera plane, I undertook some really great flights with *Philippine Mars* during all stages of training. Fire drops, simulated engine failures while scooping combined with dropping the load, engine shut downs in flight, steep turns, aborted takeoffs — everything needed to get the Mars crew current for the fire season. I had several super flights with *Philippine* against the stunning natural beauty of the area.



Caroline Mars **in VR-2 markings and badly weathered paint.**

From that point, I followed the careers of both Mars as they worked against the fires and safeguarded the consortium's investment. However, as in the USA, there was a group against the Mars. Quite vocal, they viewed them as antique and too old for the mission. The fact that the pair had been defeating fires decade after decade did not seem to matter. And, of course, costs were rising.

The company began looking for other business to help defray costs. A new source was found — my hometown. Southern California had been having really bad fires and a contract was signed that saw the Mars head south. We met *Hawaii Mars* off the coast of Malibu as the crew roared past Catalina Island to practic ocean landings off Malibu. The sea was exceptionally smooth and the Mars dipped in and out of the ocean. Part of the plan was to work the Mars in conjunction with John Wells and his California Fire Bomber PBY-6A Catalina and the Mars had landed in Long Beach Harbor and was parked near the *Queen Mary* and the huge dome that had once housed the Hughes Hercules. Again, we met up for several aerial photo sessions and the Mars did a good job blasting several large fires — its ability to scoop out of nearby lakes was invaluable.

The business was eventually acquired by Coulson and we saw less and less of the Mars in the air. A partial deal was worked with the Navy that would have seen the *Philippine Mars* traded off for some surplus aircraft. The deal fell through, but *Philippine* had already been painted in the magnificent overall Glossy Sea Blue scheme. Several attempts were made to sell the planes but nothing came of them.

NAVAL AIR TRANSPORT SERVICE
PHILIPPINE MARS

***Philippine Mars* begins its taxi towards the USS *Hornet*.**

PHILIPPINE MARS
NAVAL AIR TRANSPORT SERVICE

***Philippine Mars* anchored next to the USS *Hornet* Museum. (Lee Scales)**

The Mars were finally grounded, looking somewhat forlorn as they sat at their long-time base. Coulson was going from strength to strength with its fleet of Hercules, B.737s, and Chinooks converted to fire-bombers. Then came the news — *Hawaii* (which had its last fire season in 2015) would go to the British Columbia Aviation Museum. This event was staged in grand style on 11 August 2024 and *Hawaii* made a lengthy tour around the island in formation with the RCAF's famed Snowbirds aerobatic team before alighting one last time in Patricia Bay with veteran pilots Peter Killian and Rick Matthews at the controls. It took a lot of effort with ground movers and cranes to get the Mars put on display at the museum. The downside is that the aircraft is on outside display but the museum has stated they hope to build a structure to house the aircraft.

THE FINAL FLIGHT

Then it was time for my old friend *Philippine Mars*. The Coulson Group decided to permanently retire *Philippine* in 2012 and at that time it had been parked for five years. Beautifully finished in its original colors, the deal to trade *Philippine* to the National Museum of Naval Aviation fell through. With *Hawaii* already secure at its new home, it was announced that the blue giant would be heading to the Pima Air & Space Museum in Tucson. Now, all that remained was to get the plane ready for its final flight. The plan was to depart Port Alberni, spend one or two nights in San Francisco (its other long-term home), head to San Diego for one or two nights, and then proceed to Tucson where the plane would land in Lake Pleasant. It would then be disassembled and trucked to the museum.

I will keep this part relatively brief since it could have easily filled the entire story! During September 2024, I started dialoging with Coulson Aviation about a possible photo flight with *Philippine* as the aircraft headed south. Well, not as easy as it sounds. Suddenly, just about anyone with a digital camera was demanding the same thing. The folks at Coulson were accommodating and gracious and I made contact with Todd Davis, who is the company's chief fixed-wing pilot, Todd would be heading south in *Philippine* along with veteran Peter Killian. Flight engineer duties would be handled by Mike Johnson and Dan Millman.

We have often said nothing goes easy in vintage aviation and the final flight of *Philippine Mars* proved that saying quite true. Greg Colyer is one of the top airshow acts in the USA and as "AceMaker" he operates three T-33 Shooting Stars (actually, Canadair Silver Stars but we won't tell). Greg is also very adept at formation flying and has a Baron that we could use as the camera plane. Being based in the Bay Area, this really cut down on moving aircraft around the country. Joining in our little venture was *Air Classics* Contributing Editor Joe Scheil and Leslie Colyer. "She has better eyes than all of us combined," said Greg. This proved quite true. Leslie also flies a 747 for a major international cargo carrier and really knows her aircraft.

The final flight for *Philippine Mars* was a series of starts and stops. This was no one's fault. Old airplanes and their engines do not like to sit and this proved very true with the JRM-3. Plus, the weather during the December time frame of our photo flight is bad not only in Vancouver but also San Francisco. In a series of back and forth moves, the flight would start then stop. There was bad weather. An engine failure. More bad weather. An engine change. Further bad weather and then multiple engine changes. Were we discouraged? No, not really. When you deal with historic planes you get used to a sort of cycle of events.

In-between all this, I stayed in touch with Todd and it finally started to look like the stars were going to align. On the morning of 9 February, Todd said it was a go. Greg said it was a go. There was a slight problem at Port Alberni — fog

Mission complete. The Mars touches down on Pleasant Lake, Arizona. (Scott Germain)

and ice. However, that cleared. We had agreed on a meet-up at a point about 150 miles north of San Francisco. We got to the meet-up point and altitude right on time. So did the Mars. "It's right there!" Leslie said as she pointed over the instrument panel. Greg and I finally saw it coming head on and Greg instigated a pursuit curve turn as the Mars rumbled by and we soon joined on the plane, marveling on just how clean the four R-3350s were running.

As *Philippine* purposefully headed down the rugged shoreline, Greg maneuvered the Baron while we kept up a steady chatter on just how great the plane looked. As we approached San Francisco, Peter and Todd turned in over the Golden Gate and then took a tour of the Bay as they checked their landing spot and watched for any obstacles. Once they determined the area was clear, the Mars made a very smooth touch down. After 65 years, she was back at her last operational base. The Mars then taxied over to the USS *Hornet* Museum where the anchor was dropped. "We're frozen!" said Todd over the radio. The group then had to clear customs before heading to the hotel for well-earned rest.

By next morning, plans changed — as they will with vintage aircraft. San Diego was scrubbed and the Mars would head directly to Pleasant Lake. The folks that gathered in San Diego would be disappointed since the bay was visited on numerous occasions by Mars.

Departure time was scheduled for 11 am on 10 February and we circled near the USS *Hornet* and watched the Mars fire up and begin the taxi, doing engine runs in the process. We were able to watch from a near head-on perspective as the Mars gathered speed while leaving a majestic wake. Rising slowly into the sky, the Mars headed out over the Bay Bridge and then turned to pass Treasure Island, site of the clipper base, before heading past Alcatraz with the distinctive skyline of San Francisco in the background.

The sight of the rising Mars gave Greg, Joe, and myself pause to think of all the other aviation events that passed through the same airspace. There were the contestants in the disastrous 1927 Dole Race to Hawaii that flew their primitive monoplanes and biplanes while hoping to achieve wealth and glory but, for the most part, they just disappeared forever; Amelia Earhart headed this way in her Lockheed 10E; then we have the Martin China Clipper and the later Boeing Clippers — all of them pushing the boundaries of aviation. On a more war-like footing, the original USS *Hornet* and its load of B-25B Mitchells commanded by Jimmy Doolittle sailed the same route.

We followed the Mars as it passed the site of the former Air Corps' Crissy Field before sweeping across the span of the Golden Gate as six of the seven Mars had previously done. Then, it was a left turn and the plane headed down the coast before crossing over into the sprawling Central Valley for the final run towards Tucson. We turned back but kept watch as the blue giant eventually disappeared into the mist.

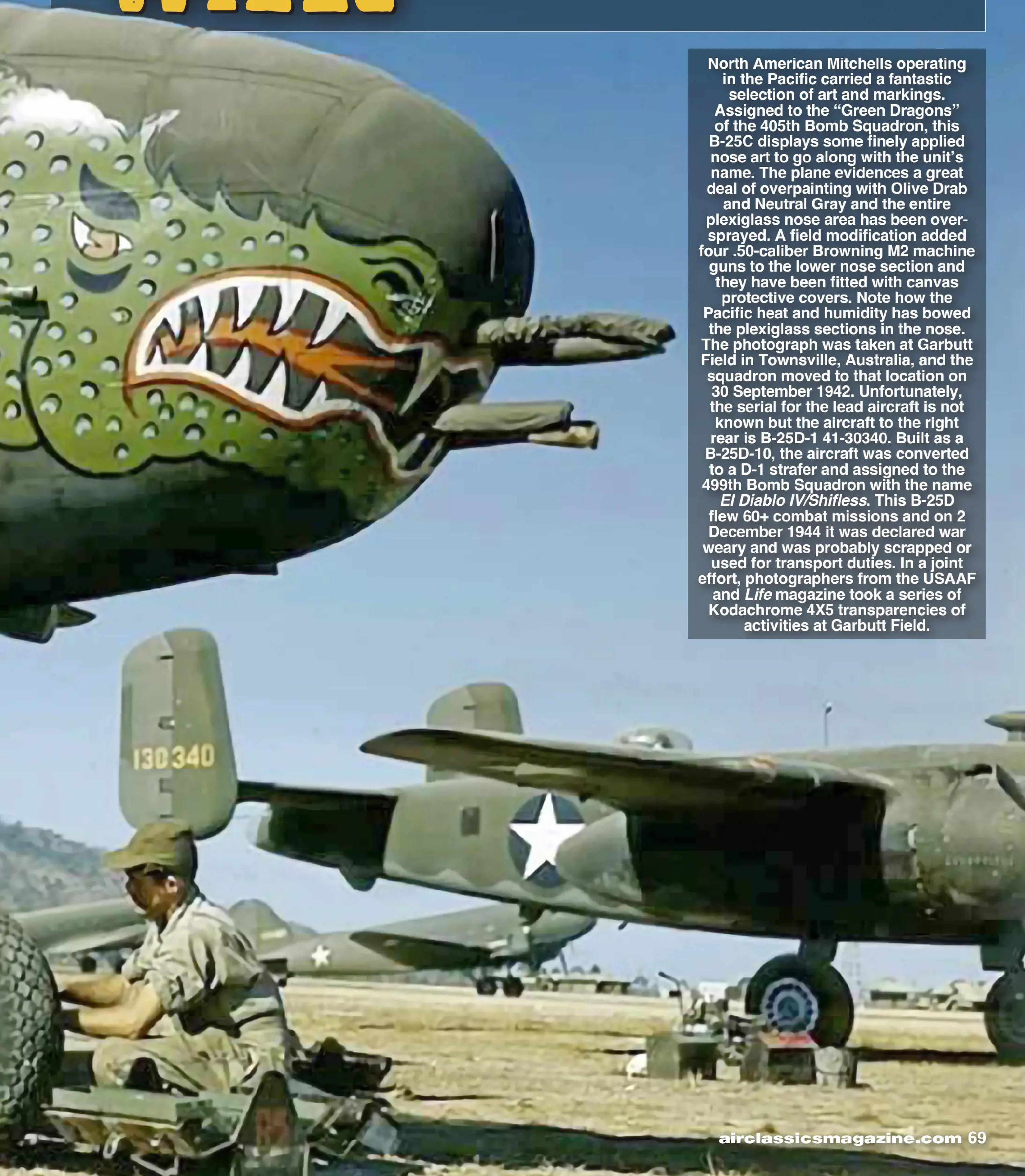
Doug and Peter made a perfect touchdown in Pleasant Lake and by next morning the plane was on land, resting on its beaching gear while workers swarmed over the aircraft removing flight controls, propellers, and engines prior to taking off the outer wing panels and tail for the road trip to Pima. As this issue goes to press, the flying days of the Mars are over and the future of the *Philippine Mars* will be reassembly at its desert parking spot where it will be able to rest near another rare Martin survivor — the last PBM-5A Mariner.

Preparing this article required the help of a lot of people including Greg and Leslie Colyer, all the folks at Coulson Aviation, Joe Scheil, Roger Cane, Lee Scales, Nick Veronico, Scott Germain, and Jerry Vernon. Thanks to everyone involved. It was a tough mission but we did it. **AC**

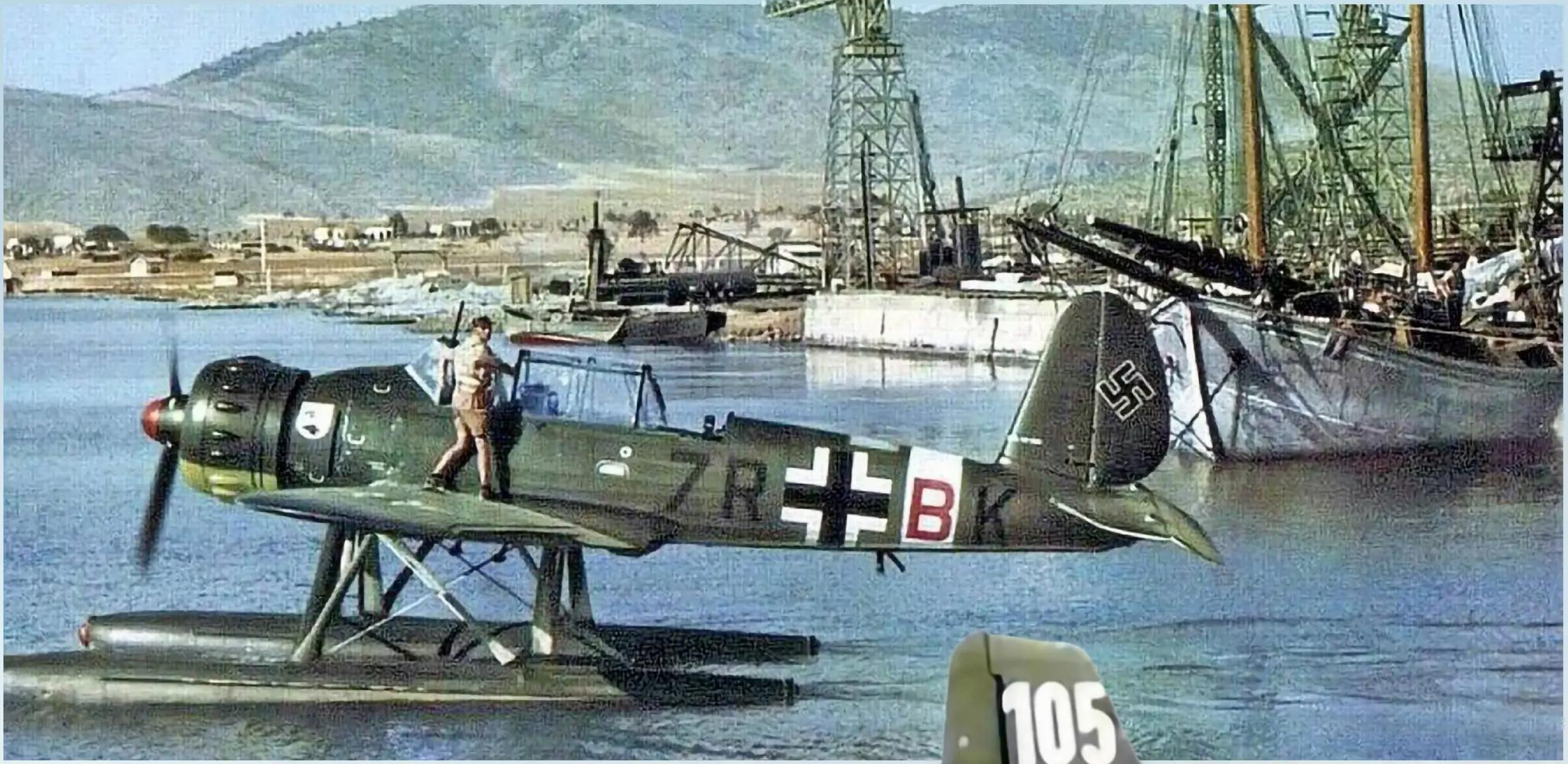
COLORS OF WAR

DELVING INTO THE CHALLENGE HISTORIC ARCHIVES, WE PRESENT A FURTHER SELECTION OF WORLD WAR TWO COLOR IMAGES

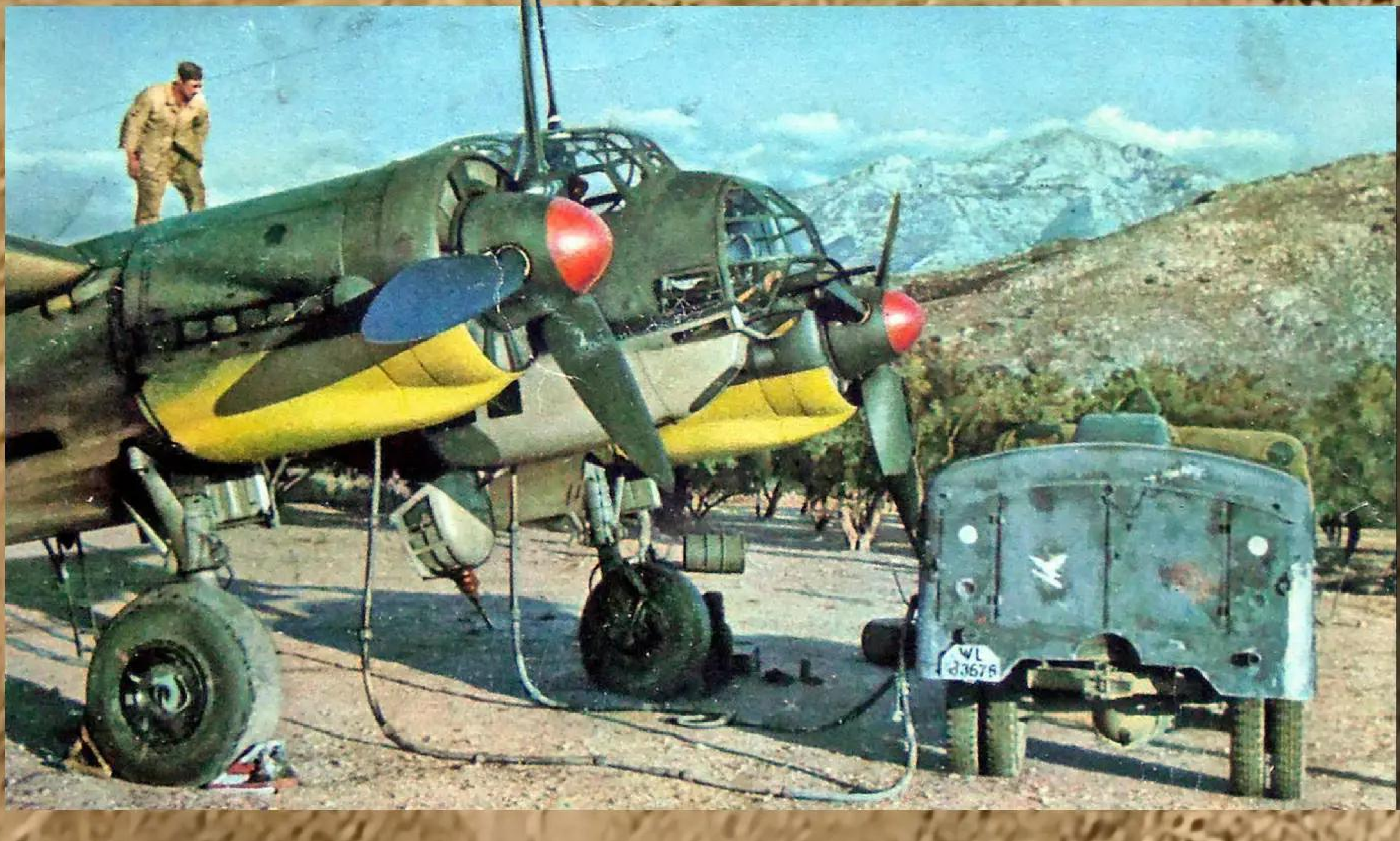
BY MICHAEL O'LEARY



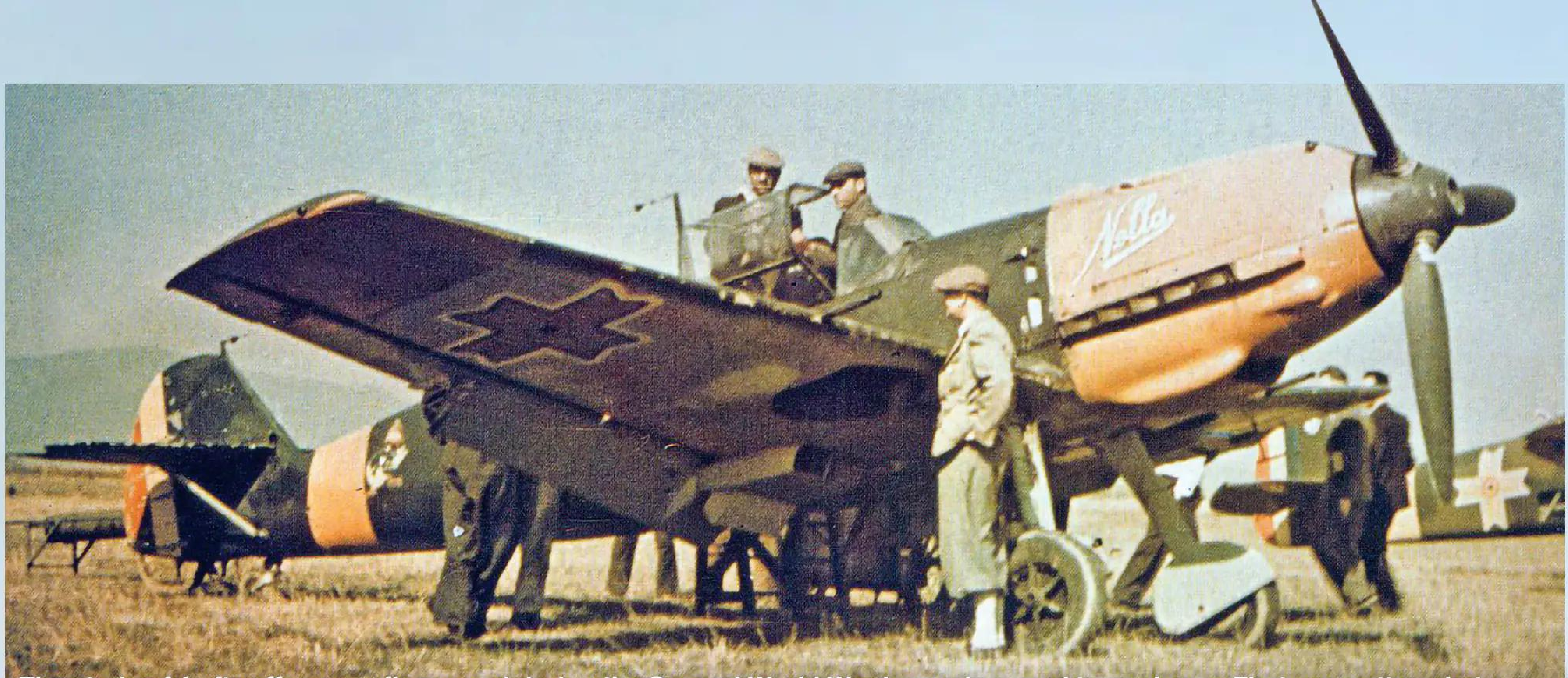
North American Mitchells operating in the Pacific carried a fantastic selection of art and markings. Assigned to the "Green Dragons" of the 405th Bomb Squadron, this B-25C displays some finely applied nose art to go along with the unit's name. The plane evidences a great deal of overpainting with Olive Drab and Neutral Gray and the entire plexiglass nose area has been over-sprayed. A field modification added four .50-caliber Browning M2 machine guns to the lower nose section and they have been fitted with canvas protective covers. Note how the Pacific heat and humidity has bowed the plexiglass sections in the nose. The photograph was taken at Garbutt Field in Townsville, Australia, and the squadron moved to that location on 30 September 1942. Unfortunately, the serial for the lead aircraft is not known but the aircraft to the right rear is B-25D-1 41-30340. Built as a B-25D-10, the aircraft was converted to a D-1 strafer and assigned to the 499th Bomb Squadron with the name *El Diablo IV/Shifless*. This B-25D flew 60+ combat missions and on 2 December 1944 it was declared war weary and was probably scrapped or used for transport duties. In a joint effort, photographers from the USAAF and *Life* magazine took a series of Kodachrome 4X5 transparencies of activities at Garbutt Field.



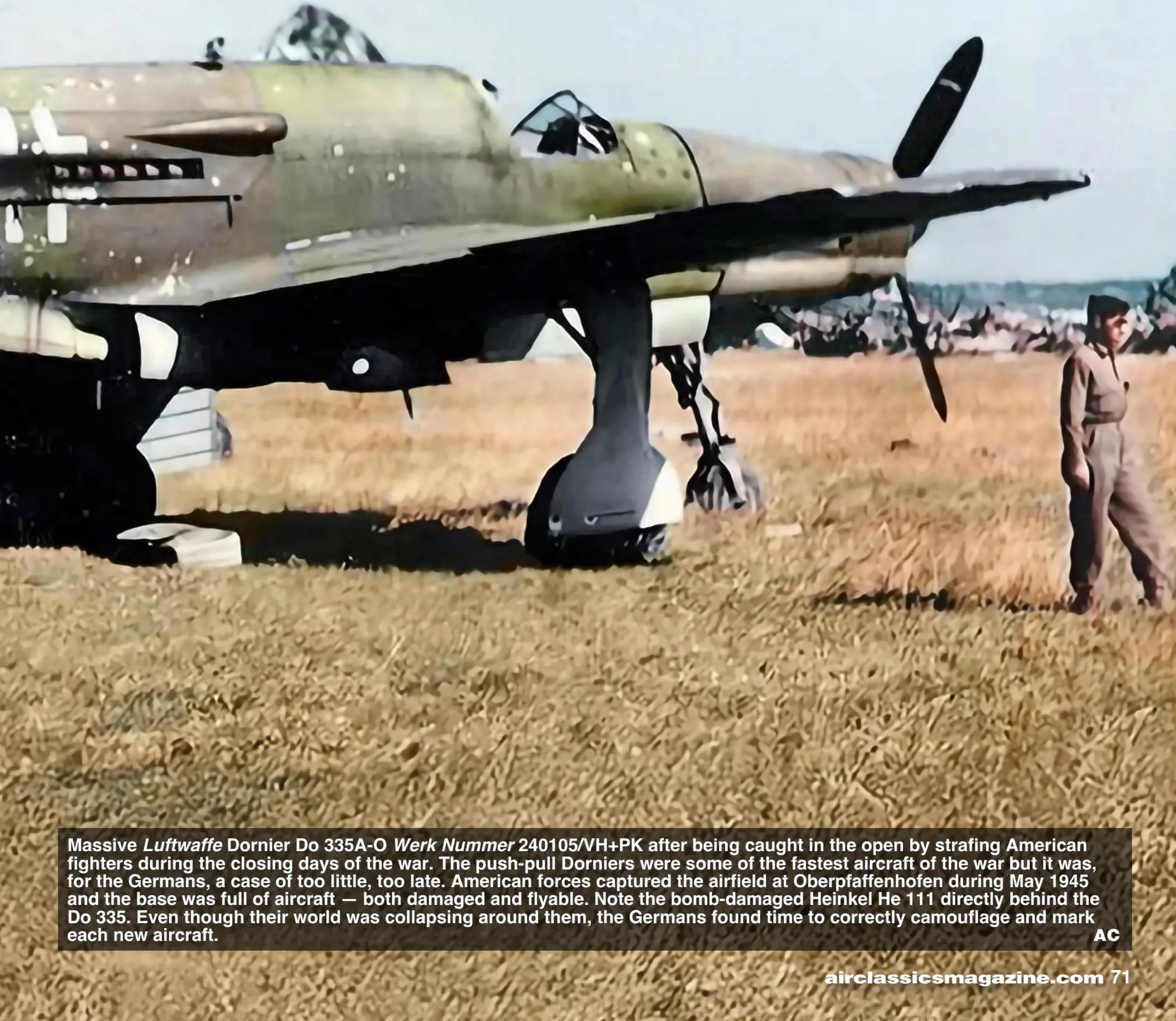
With its BMW 132W nine-cylinder radial of 1050-hp ticking over, a mechanic adjusts the shoulder straps of the pilot of an Arado Ar 196A prior to the aircraft's taking off from a bombed harbor. The Ar 196 was a jack-of-all-trades aircraft and was used for a wide variety of maritime activities, being stationed on larger German capital ships and at land bases.



With snow-capped mountains in the background, a Junkers Ju 88A is refueled in Sicily during 1941/1942 from an Opel *Blitz* 3t S refueling truck. The bright yellow lower cowlings were an identification feature for the *Luftwaffe* aircraft. German aviation fuel deserves its own study. The standard *Luftwaffe* fuel was just 87 Octane and this was the same fuel rating used on *Wehrmacht* vehicles including the dreaded *Panzers*. However, there was also 96 Octane and this was reserved for fighters such as the Messerschmitt Bf 109 and Focke-Wulf Fw 190 series. The German oil situation was never good and with American attacks on refineries, it only got worse and this led to lots of experimenting with aviation fuels. We will have more on this in a future issue.



The study of *Luftwaffe* camouflage used during the Second World War is surely a road to madness. First, no matter what plastic modelers think, there were thousands of variations in regard to the colors of paints and their applications. Then, we have to factor in the poor quality of German color film and its deterioration over the years. Countries allied with the Nazis added their own paint colors and markings as can be seen on this Romanian Air Force Messerschmitt Bf 109E photographed in Russia during 1941. The aircraft has a yellow nose common to the type but it also has a name painted on the cowling, the attractive cross-shaped national insignia, tail stripes, and an overall green camouflage.

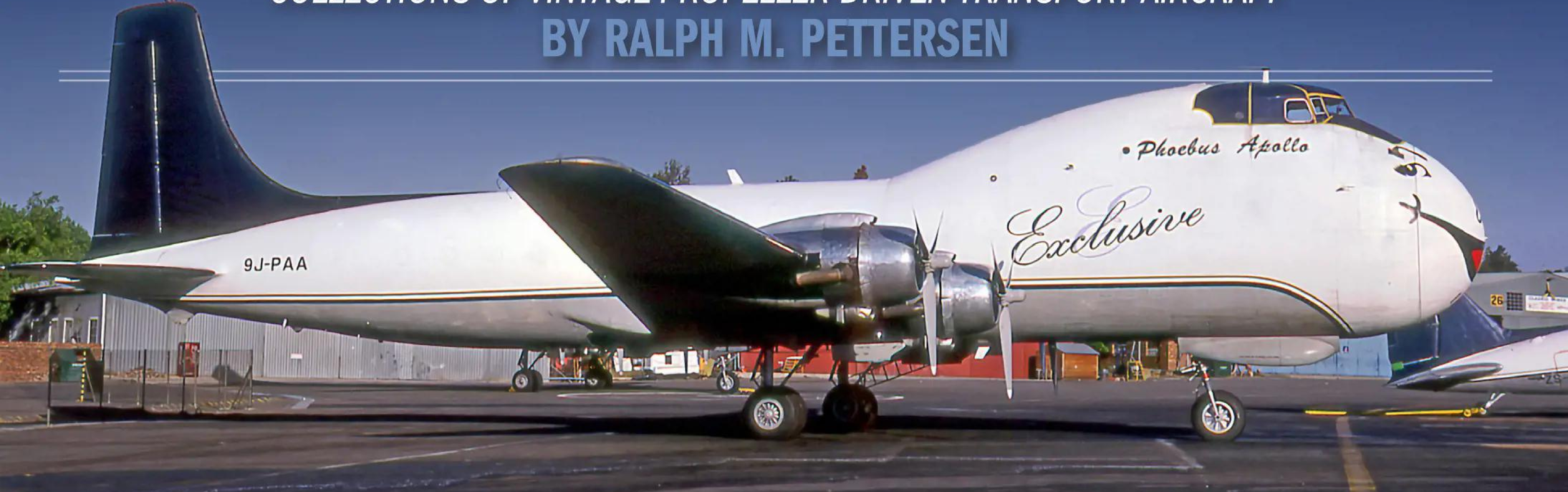


Massive *Luftwaffe* Dornier Do 335A-O *Werk Nummer* 240105/VH+PK after being caught in the open by strafing American fighters during the closing days of the war. The push-pull Dorniers were some of the fastest aircraft of the war but it was, for the Germans, a case of too little, too late. American forces captured the airfield at Oberpfaffenhofen during May 1945 and the base was full of aircraft — both damaged and flyable. Note the bomb-damaged Heinkel He 111 directly behind the Do 335. Even though their world was collapsing around them, the Germans found time to correctly camouflage and mark each new aircraft. **AC**

PROPLINER HAVEN

THIS SOUTH AFRICAN AIRFIELD HOUSES ONE OF THE WORLD'S MOST SIGNIFICANT COLLECTIONS OF VINTAGE PROPELLER-DRIVEN TRANSPORT AIRCRAFT

BY RALPH M. PETTERSEN



Sometimes when bad things take place, they result in good things appearing. My wife and I were on an around-the-world cruise last year when the Suez Canal was essentially shut down due to the ongoing Middle East conflict. This resulted in a diversion around Africa with a number of visits to South African ports, which presented an opportunity to visit the "Propliner Haven" located at Rand Airport.

We departed the ship in Port Elizabeth, South Africa, flew to Johannesburg, and then continued onwards by car to Rand Airport, which is located in the nearby suburb of Germiston. I had previously contacted retired South African Airways (SAA) Captain "Flippie" Vermeulen and we stayed overnight at his aviation-themed Dakota Lodge, which is located on the airport. The lodge is a great place for any aviation enthusiast and is just a short distance away from the Harvard Cafe, which offers up a full array of meals. The obvious reason for the visit was to attend the South African Airways Museum and check out the other Propliners located on the airport.

The Dakota Lodge is an attraction in itself with many aviation artifacts on display. The original 1930s-era SAA hangar is attached to the lodge and was full of interesting aircraft, including SAA Museum DC-3 ZS-BXF along with Springbok Classic Air DC-3 ZS-KEX and Beech E18S ZS-OIJ. Springbok Classic Air is part of the Springbok Group of Companies, which is owned by Capt. Vermeulen and was created out of his love of vintage aviation that began when he undertook the conversion training to a DC-3 at age 19. While ZS-KEX hasn't flown for 30+ years and was disassembled, ZS-OIJ is airworthy and is flown regularly to airshows. Built in 1959, it is the last airworthy example in southern Africa and was featured in the 2008 film *Amelia* and is still in the colors it wore during the filming.

One might ask why Rand Airport is home to so many vintage Propliners and the answer lies in the fact that it is home to Springbok Classic Air, Phoebus Apollo Aviation, and the SAA Museum. All of these organizations operated Propliners in the past and, unlike many other airports around the world, there has been no effort to "clean up" the field. As I began researching material for this article, it became obvious that Capt. Vermeulen has been a key player in the preservation of these aircraft. If not for him, most of the Propliners, including those at the museum, would have not survived into the 21st Century. Unfortunately, with the shutdown of SkyClass Aviation DC-3 and DC-4 operations in late 2017, other than Beech ZS-OIJ, none of the airport's Propliners are flying.

While Capt. Vermeulen was out of town during our visit, he had arranged for brothers Tim and Caleb Homan to give us an airside tour of the airport the next morning. Our first stop was a short distance from the Dakota Lodge where Flying Dutchman Foundation DC-4 ZS-AUA and SAA Museum DC-4 ZS-BMH

Freddy Laker's ATL-98 was created to haul outsize cargo, cars, and passengers. Based on the C-54 airframe, 21 such aircraft were converted and this is the last example. The Carvair was photographed near the end of its operational life.

Lebombo were parked in a grass field. During the short walk to the DC-4s, we passed Fokker F-27-500RF D2-ESN, which appeared complete and in decent condition despite being stored at the airport for years.

ZS-AUA was a forlorn sight parked in the grass, having been stripped of all paint and missing two engines along with its flight controls and other bits and pieces. Currently owned by the Flying Dutchman Foundation, it was delivered to SAA in March 1946 as ZS-AUA *Tafelberg*. Sold to the South African Air Force (SAAF) as 6901 in January 1966, it was leased back to SAA from 1968 to 1970 as ZS-AUA before finally being retired by the SAAF and sold to Aero Air as ZS-NUR in August 1995 (many of the surviving Propliners have a direct SAA/SAAF connection). It was acquired by the Dutch Dakota Association (DDA) a few months later and carried the South African registration until December 1996, when it was reregistered PH-DDS. Painted in 1950s-era KLM colors, it was a frequent visitor to European airshows until new rules and regulations imposed by the Dutch government made its operation by DDA untenable. The DC-4 was leased to Springbok Flying Safaris in January 2001, with the *proviso* that it be operated in Europe through 2003. Reregistered ZS-AUA in November 2002, it remained in basic KLM colors with its "The Flying Dutchman" fuselage titles being replaced with "The Flying Springbok" in September 2003.

Flown to South Africa after the 2003 European airshow season, the DC-4 was operated on sightseeing flights by Springbok and later while on lease to Rovos Air and SkyClass Aviation. Airworthy at least through 2008, ZS-AUA was retired and moved to the SAA Museum Airpark in December 2010, where it remained until sold to the Flying Dutchman Foundation in December 2013. Founded by four members of DDA, the foundation planned on making the DC-4 airworthy by 2017 to celebrate the 70th anniversary of KLM's first Amsterdam to New York flight in 1947. The #1 and #3 Pratt & Whitney R-2000 engines along with instruments and flight controls were removed for overhaul and are reportedly stored in a nearby hangar.

Flippie Vermeulen putting on a spirited display with the modified Beech E18S ZS-OIJ, now the only remaining round-engine flyer at Rand Airport. (Timothy Homan)

The Fokker F-27 has now become somewhat of a rarity and this example appears to be in good condition although it has not flown in some time.

Although painted in vintage KLM colors as late as 2015, the aircraft has been stripped to bare metal and the project has been dormant for some time.

DC-4 ZS-BMH *Lebombo* is owned by the SAA Museum and was the last DC-4 off the Douglas Santa Monica production line in 1947. It's painted in 1950s-era blue and white SAA colors and still retains a 50-passenger interior. Along with DC-4 ZS-AUB *Outeniqua*, which is on display on the airport at the SAA Museum Airpark, it operated passenger tourist charters until late 2017. Rather than discussing the history of each museum aircraft, I believe it would be more useful to examine some aircraft histories in conjunction with the history of the SAA Museum.

SOUTH AFRICAN AIRWAYS MUSEUM

While not founded until 1986, the SAA Museum can trace its roots back to 1972 when the South African Railways Museum acquired Lockheed L-18-08 Lodestar ZS-ASN *Andries Pretorius*. With the exception of wartime service, ZS-ASN was operated by SAA from 1939 to 18 March 1955, when it made its final flight with the airline. The railways museum didn't have the facilities to accommodate the aircraft and donated it to SAA in 1973.

The second aircraft added to the airline's collection was de Havilland Dove ZS-BCC *Katberg* which was rescued from an English boneyard in 1978, transported to South Africa, and restored at the SAA Apprentice School for static display.

The Junkers Ju 52/3m was another popular flyer before its grounding.

The Lockheed Lodestar is one of the world's few preserved examples.

The next aircraft acquired by the airline was Lockheed L-1649A Starliner ZS-DVJ, which was disassembled at Warmbaths, South Africa, in May 1979 and transported to the SAA maintenance facility at Jan Smuts International Airport (now OR Tambo Airport) in Johannesburg. Reassembly began in early 1984 and was completed in time for the SAA Open Day on 30 April 1988. Additional history of these three aircraft follows later in the article.

Junkers Ju 52 (actually a CASA 352L) G-BFHE was acquired by the airline in 1981 and flown from England to Germany on 18 May 1981, where it was disassembled by a team of SAA apprentice mechanics. From there it was loaded onboard a "roll-on/roll-off" ship for the journey to South Africa. It arrived at Jan Smuts in July 1981 where reassembly began in earnest in 1982. Reregistered ZS-AFA and named *Jan Van Riebeeck*, it was a familiar sight over Johannesburg carrying passengers on sightseeing flights until withdrawn from service in 2000. ZS-AFA made its last flight on 30 November 2005, when it was flown from Swartkop AFB to OR Tambo. ZS-AFA is currently in the SAA Apprentice School hangar at OR Tambo and, while not on display at least it's out of harm's way.

The SAA Museum Society was founded in 1986 by SAA employees and retirees along with other interested parties with the goal of preserving the history of SAA as well as that of civil aviation in South Africa. It acquired its first aircraft in March 1987, which was the very rare Vickers Viking VC.1 ZS-DKH. This aircraft had been delivered new to British European Airways as G-AHOT *Valkyrie* in September 1946. Operated by a number of European airlines, it was acquired by Trek Airways in September 1954 as ZS-DKH. Flown in Protea Airways colors, it operated "low and slow" flights to Europe until retired in December 1962 and sold to a Caltex garage, which would later be named "Vic's Viking Garage." It was placed on top of the garage and stayed there until March 1987, when it was replaced by Avro Shackleton SAAF 1723 and moved to Jan Smuts. Moved to Rand in January 2017, it was restored and is currently on display in Protea Airways markings at the museum's airpark.

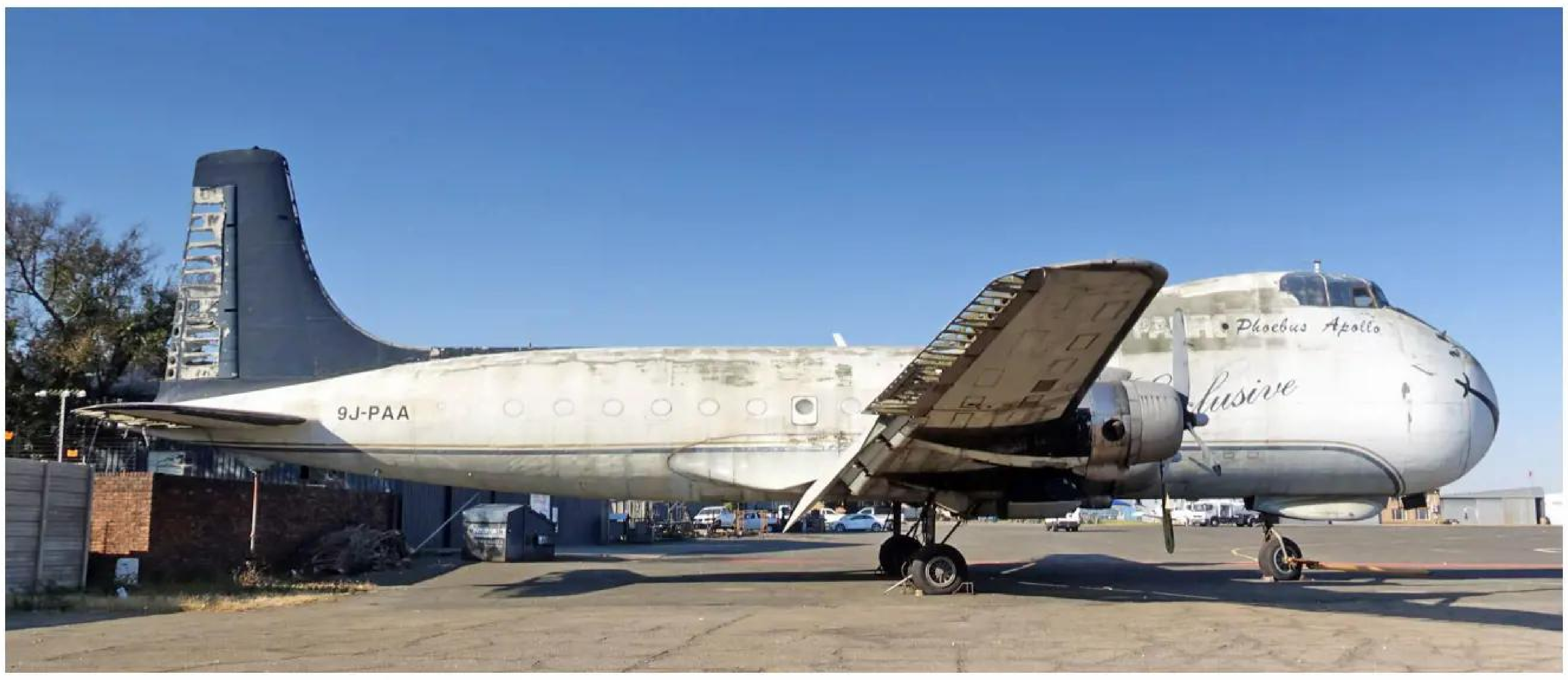
In the meantime, the Ju 52 had continued flying sightseeing passengers by the airline but was not making enough money to support the operation. Captain Vermeulen took over the Ju 52 flight program in 1988 and in early 1989 he approached SAA executive management with a proposal to formalize Ju 52 flight operations to take advantage of the airline's considerable resources.

Fuselage of the Jetstream moving to its new home on 13 October 2017. (John Austin-Williams)

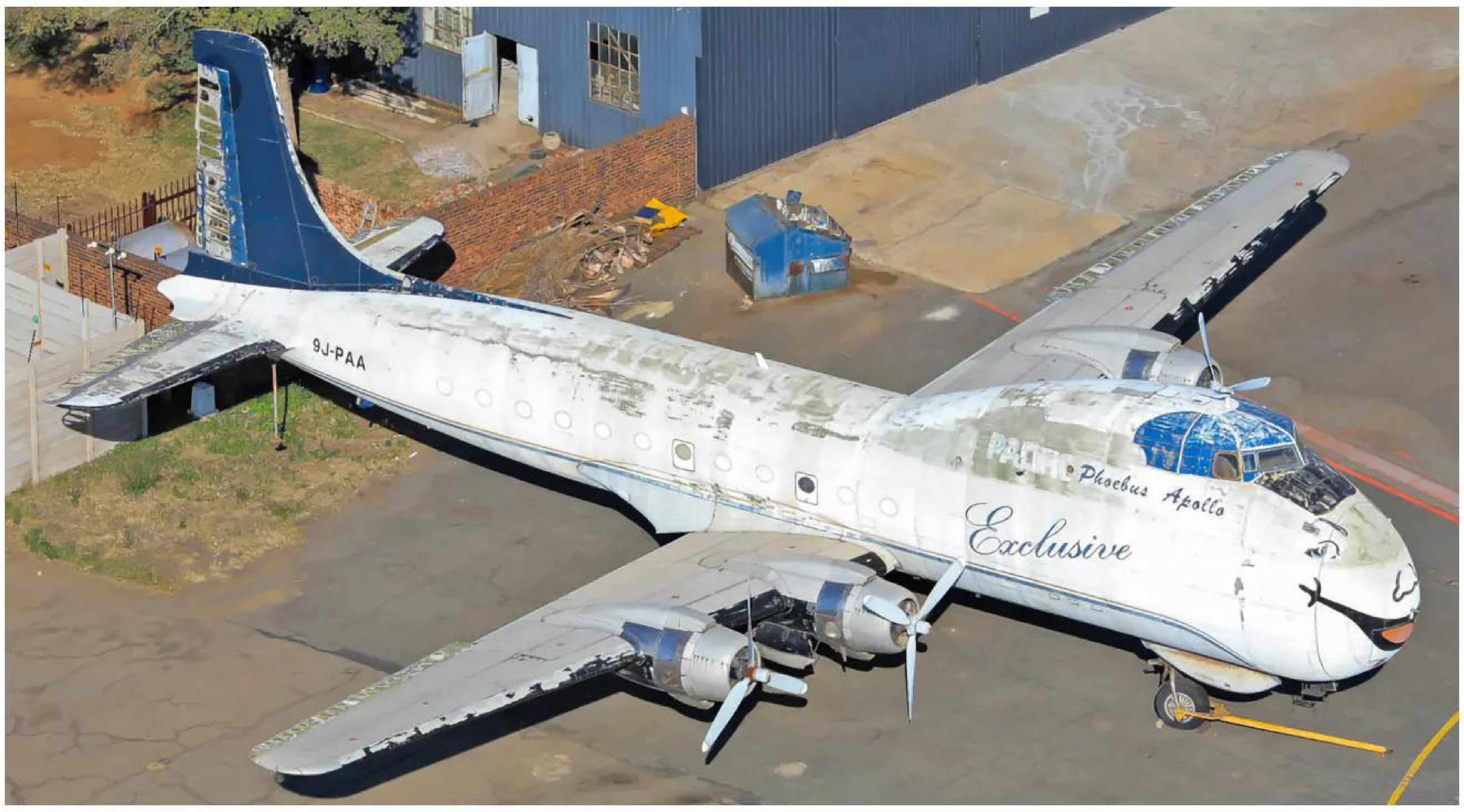
This is the only surviving Lockheed 1649 Jetstream that has not been converted to a freighter.

SAA HISTORIC FLIGHT

During this same time, Johann Prozesky had negotiated with the SAAF to obtain a Douglas DC-3 and a DC-4 for static display. Captain Vermeulen decided that, since these aircraft still had some commercial potential, it would be a good idea to reintroduce them as fliers into the newly-formed SAA Historic Flight, which was still awaiting approval from SAA Executive management.



Although complete, the last-built Carvair is in poor external condition. Prior to conversion, the Skymaster flew with Pan American (N88881), Japan Airlines (JA6015), and Ansett-ANA (VH-INM).



Besides its cosmetic condition, with some work the Carvair could once again fly.

Four years later, on 23 November 1993, the SAA Historic Flight was created as a profit center within SAA to manage the Ju 52 and other vintage aircraft operations. In early 1993, DC-3 ZS-BXF *Klapperkop* was delivered and on 5 April 1993 DC-4 ZS-BMH *Lebombo* followed. Both aircraft had seen service with SAA before being sold to the SAAF and both were delivered with fresh C-checks. This enabled Capt. Vermeulen to introduce the DC-4 commercially, even before the SAA Historic Flight had been formally approved and without an operating budget. On 8 April 1993, Capt. Vermeulen, Capt. Lorrie Raath, and Flight Engineer Alf Mairs departed Johannesburg with ZS-BMH on its first commercial flight. This established the SAA Historic Flight as a fully independent commercial venture.

SAA Historic Flight business expanded rapidly and soon requests were coming in from around the world. Swiss Air wanted a DC-4 to commemorate the 50th anniversary of its first transatlantic flight in 1947 and the SAA Historic Flight was contracted to provide an aircraft and crew for the flight. ZS-BMH didn't have long-range tanks so C-54 ZS-AUB *Outeniqua* was acquired from the SAAF, which was retiring the type. ZS-AUB had been owned by SAA before being sold to the SAAF in 1967 and had the desired long-range tanks. A second C-47, ZS-BXJ, was part of the deal but had never seen service with SAA. On 16 December 1995, Capt. Vermeulen, Capt. Johan Dries and Flight Engineer Alf Mairs delivered ZS-AUB from Waterkloof to Jan Smuts. It was still in SAAF colors!

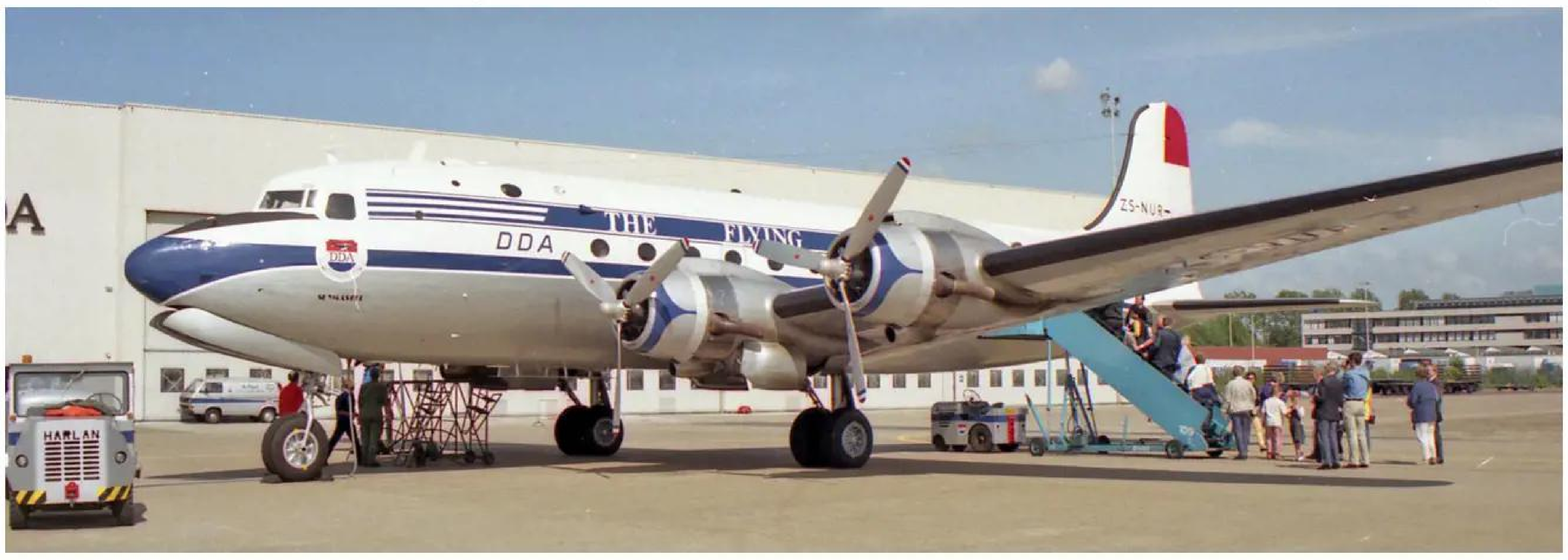
The period from 1994 to 1999 were heady times for the SAA Historic Flight with the two DC-4s participating in some notable flights:

- August 1994 — ZS-BMH attended the EAA Fly-in at Oshkosh in SAA colors. The 9300-mile journey set a world record for the longest Propliner flight in one direction with an unchanged passenger group. Actor and aviation enthusiast John Travolta was onboard and the aircraft won the "Best Transport Aircraft Award" in the classic category.
- May 1996 — ZS-BMH flew to Nord Kap in Norway. This is the northernmost point of the European continent.
- 1997 — ZS-AUB completed four Atlantic crossings in period Swiss Air colors.
- August 1998 — ZS-BMH attended the Berlin Airlift 50th Anniversary Celebration at Tempelhof Airport in Berlin.

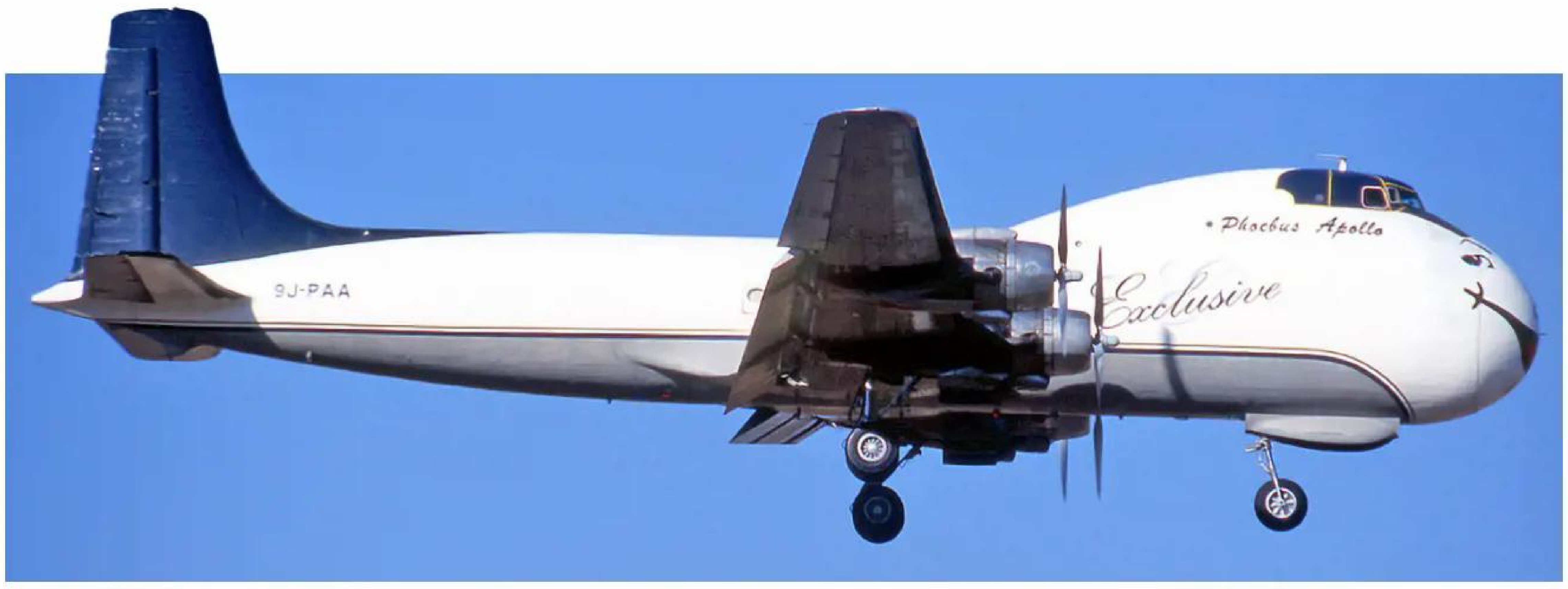
SA HISTORIC FLIGHT

Things took an ominous turn when, in early 1999, SAA CEO Coleman Andrews notified the SAA Historic Flight that the organization would be shut down and its assets disposed sold. Captain Vermeulen negotiated with the Transnet Heritage Foundation to assume ownership of SAA Historic Flight assets before they could be eliminated. The new organization was renamed "SA Historic Flight" (SAHF) since the name South African Airways could no longer be used. Ownership of DC-4s ZS-AUB and ZS-BMH were officially transferred to Transnet on 25 January 2001.

Since they were being evicted from their SAA home at Jan Smuts, a location had to be found for the new SAHF. Captain Vermeulen again came to the rescue by negotiating with the Chief of the SAAF, General Hechter, to relocate the SAHF to Swartkop AFB. The big move took place in April 1999 with the help of volunteers from both the SAHF and SAA Museum. The non-airworthy



Douglas Skymaster ZS-NUR taking on a load of passengers during September 1996 when the craft was a regular flyer with the Dutch Dakota Association. (Michael Prophet)



The Carvair during one of its last flights.

SUID-AFRIKAANSE
LEBOMBO
BMH

Currently parked, Skymaster ZS-BMH could be returned to flying condition.

DAKOTA Lodge
ENGEN
Aviation Service
AVIATION FUEL REQUIREMENTS
RADIO CALL 130·50

The Dakota Lodge is ideally placed for a visit to the airfield.

Lockheed Lodestar ZS-ASN and de Havilland Dove ZS-BCC were also moved to Swartkop in April.

The SAA Museum also relocated to Swartkop in 1999 and set up a display hall for the museum's collection of SAA and civilian aviation artifacts and memorabilia. Starliner ZS-DVJ and Viking ZS-DKH remained behind at Jan Smuts as the museum was unable to bear the costs of relocating the two aircraft.

After being based at Swartkop AFB for five years, the museum moved to Rand Airport in January 2004. The management of Rand Airport had generously donated a tract of land on the east side of the airport adjacent to the Runway 11/29 for the museum to display its aircraft collection. The old Transvaal Aviation Club Building is located on the tract and was repurposed to house the museum's display hall and Ian Carrol Library.

SAA had donated Boeing 747-244B ZS-SAN *Lebombo* to the museum but Rand's Runway 11/29 was too narrow to accommodate the aircraft. Barloworld Equipment generously donated all the necessary earth-moving equipment and personnel to widen Runway 11 and, on 5 March 2004 the B747 made a perfect landing at the airport.

SAHF AIRCRAFT DONATED TO MUSEUM

SA Historic Flight ceased flying operations in the later-half of 2005 and moved from Swartkop to Jan Smuts. After only a short time at Jan Smuts, the SAHF relocated to Rand Airport in September 2006 and resumed operations. Skymasters ZS-AUB and ZS-BMH were flown to Rand Airport on 18 September 2006, while DC-3 ZS-BXF was undergoing repairs at the SAA Apprentice School hangar as the result of a forced landing in November 2003. It would join the DC-4s at Rand later in the year.

The two DC-4s, along with DC-3 ZS-BXF and Ju 52 ZS-AFA were officially donated to the SAA Museum by Transnet on 31 December 2007. In addition, Dove ZS-BCC and Lodestar ZS-ASN were also moved to Rand, with the Ju 52, Viking, and Starliner remaining behind in Johannesburg.

SKYCLASS AVIATION

In December 2007, the SAA Museum entered into a lease agreement with SkyClass Aviation to operate the two DC-4s and the DC-3. SkyClass specialized in providing tailor-made air charter services to the tourism and corporate market both in South Africa and internationally. SkyClass is owned by entrepreneur James Grcic and held a Part 121 certificate for both domestic and international operations with DC-3 ZS-BXF and Skymasters ZS-AUB and ZS-BMH.

SkyClass relocated operations to OR Tambo in May 2009, with hangar and office space located at Denel Aviation. The company operated very popular passenger charters out of OR Tambo with ZS-AUB and ZS-BMH, as well as Douglas DC-3 ZS-BXF until late 2017. The DC-4s seated 50 passengers in business class configuration and, with a range of over 1800 miles, destinations in Central and East Africa were within easy reach and flights to Europe and even North America were a possibility. ZS-AUB made her last

PHOEBUS APOLLO
Phoebus Apollo
Atlas

DC-4 ZS-PAI in Phoebus Apollo markings. This aircraft served with the USAAF/USAF from 1945 to 1973 and then went on to have a long civilian life.

Skymaster ZS-NUR in flight. This aircraft participated in many significant flights during the 1990s. It was a frequent visitor to European airshows until new rules and regulations imposed by the Dutch government made its operation by DDA untenable.

flight on 26 February 2007, when she completed a three-engine ferry flight from Port Alfred to Rand after experiencing an engine failure while operating an excursion flight. For ten years these aircraft provided tourists with amazing destination flights but alas, all good things must come to an end. The two DC-4s and DC-3 were "officially" retired in 2018 and fortunately all three aircraft are now part of the SAA Museum's collection.

MUSEUM VISIT

Next on our airport tour was a visit to the SAA Museum. The museum is a treasure trove of Propliners and other aviation artifacts and a visit has been on my "bucket list" for many years. I never thought I would get there but, when our world cruise was diverted, a visit became a distinct possibility. I contacted museum chairman John "Jaws" Austin-Williams and confirmed our visit, which coincided with the museum's "Career Day" event.

Top on my list of aircraft to see was Lockheed 1649A Starliner ZS-DVJ and Mike Paterson provided a personal tour of the aircraft, both inside and out. Of the four surviving Starliners, ZS-DVJ is the only example to have never been converted into a freighter. Delivered to *Lufthansa* in January 1958 as D-ALOL, the Starliner only flew for the airline a mere six years before being sold to Trek Airways in February 1964 and registered ZS-DVJ. Leased by South African Airways from May to September 1965 and then to Luxair from May 1967 to June 1968 as LX-LGX, the aircraft was retired from airline service in April 1969. Stored in Johannesburg after retirement, the Starliner was purchased by W.J. Pelser in July 1971 and made its last flight on 0 October 1971 when flown to the Klein (Little) Kariba Resort near Warmbaths, South Africa. As noted previously, in 1978 she was donated to SAA, dismantled by a SAA crew, and transported to Jan

AERO-ACCESSORIES, INC.
In Business | Since 1956

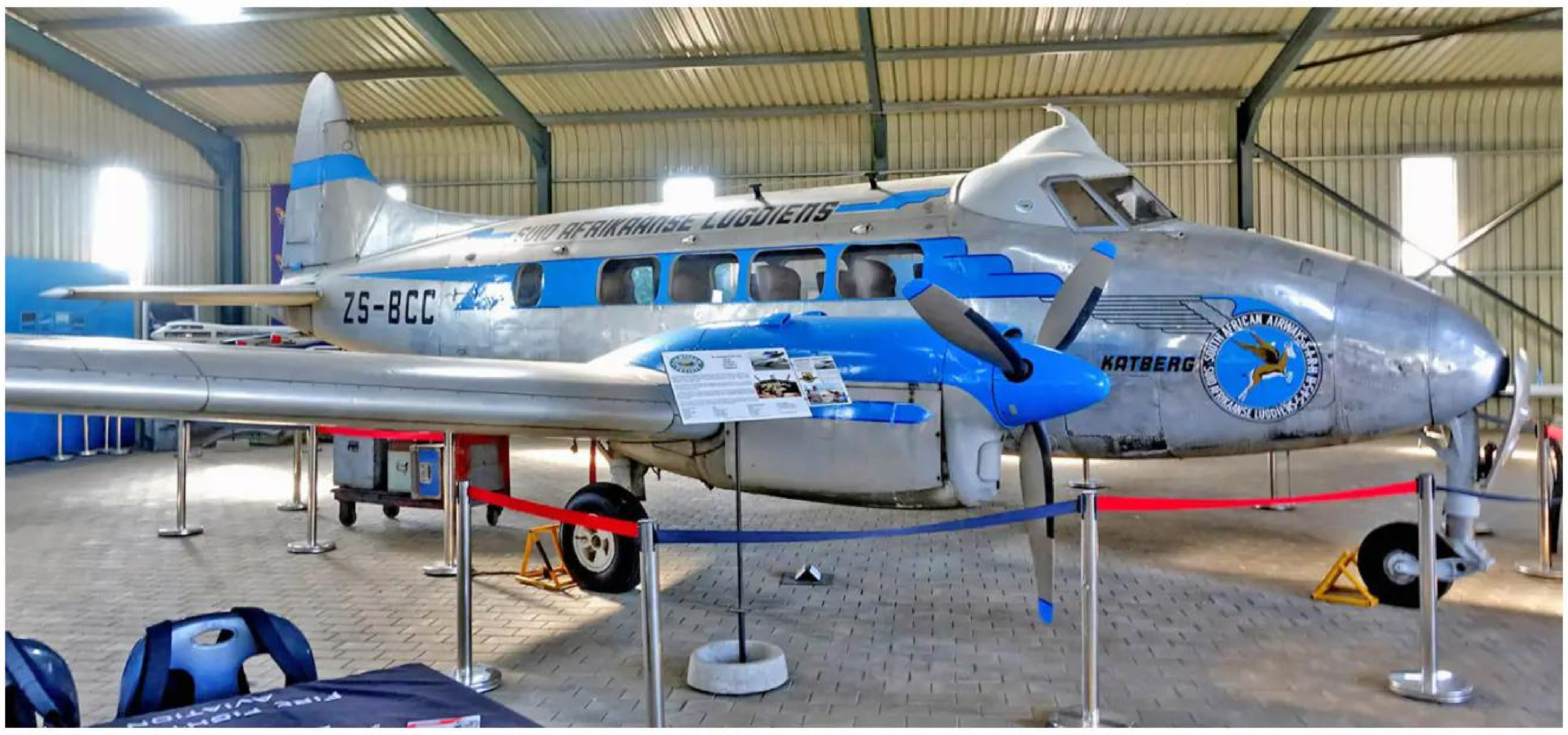
SPECIALIZING IN:
- Radial Engine Accessories
- Overhauls and Repairs
- Accessories and Carburetors
- DC3/C47 Hydraulic Components

FAA Repair Station
No. UB2R207L

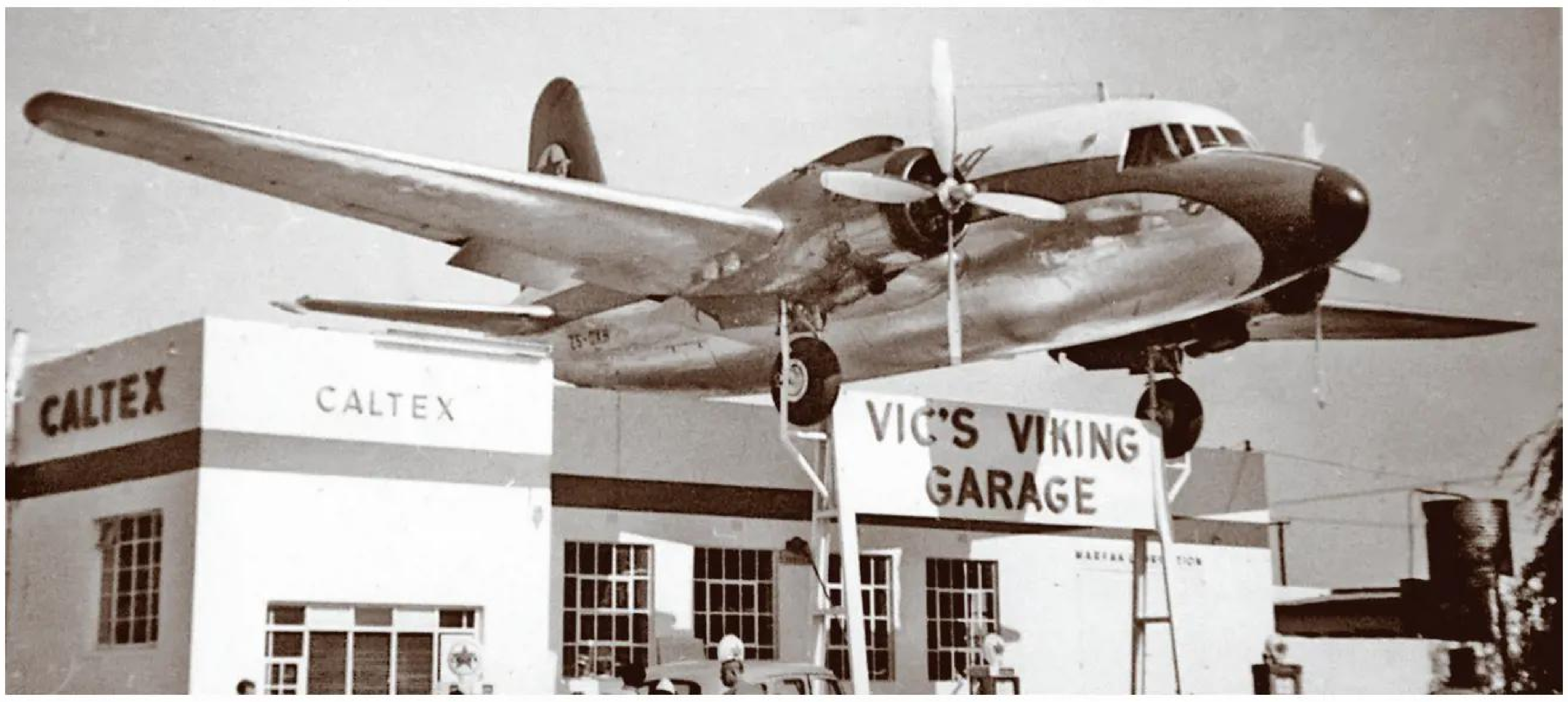
Call us for your warbird and vintage aircraft accessory needs!

210-735-9467 | Fax 210-735-2819
www.aeroaccessoriesinc.com | sales@aeroaccessoriesinc.com
300 Fredericksburg Road, San Antonio, Texas 78201-6305

AMERICAN EXPRESS MasterCard VISA DISCOVER NETWORK Find us on Facebook



De Havilland Dove ZS-BCC was saved from being scrapped in Britain. Moved to South Africa, the aircraft was restored in SAA markings. *Katberg* was the second aircraft acquired by SAA for the airline's collection of vintage aircraft.



Viking ZS-DKH sat atop Vic's Viking Garage for over a quarter-century. (SAA)

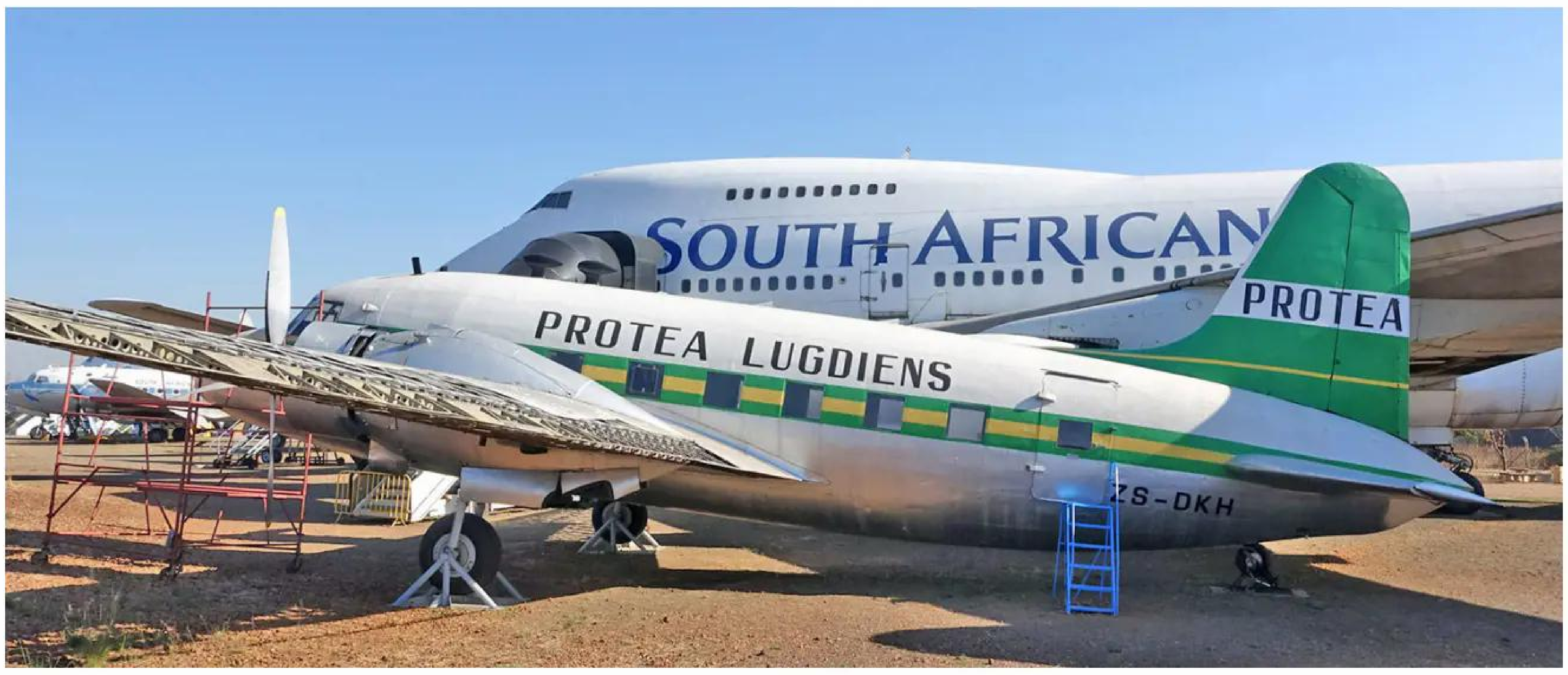
Smuts, where she arrived on 23 May 1979. Restoration began in February 1984 and, decked out in full Trek Airways colors, ZS-DVJ made its debut at the SAA Open Day on 30 April 1988. Forced to move from the SAA facility at OR Tambo International Airport, disassembly began in October 2011 with it finally being moved by road to Rand Airport in October 2017. The Starliner was reassembled by museum volunteers and was externally complete by October 2019. She's looking good inside and out, which is a real testament to the dedication of museum volunteers.

Other Propliners on outdoor display are former SAA DC-4 ZS-AUB *Outeniqua*; former Phoebus Apollo Aviation C-54D ZS-PAJ *Helios*; and Vickers VC-1 Viking ZS-DKH. ZS-AUB was painted in South African Airways "Orange Tail" colors and open for visitors to have a look at the interior. Along with DC-4 ZS-BMH, her history has been previously discussed and it remained airworthy until 2017 flying tourist on excursion flights.

C-54D ZS-PAJ *Helios* was delivered to the USAAF in 1945 as 43-17242 and joined the Royal Danish Air Force as N-242 in 1959. Returning to the United States in 1978, it was acquired by Millardair a few months later and registered C-GRYY. After service with multiple small freight operators, the Skymaster was acquired by Phoebus Apollo Aviation in October 1999 and registered C9-ATS in October 1999. It was registered ZS-PAJ in 2000 and named *Helios*. In January 2006, it was donated to the SAA Museum with the stipulation that it would remain in Phoebus Apollo livery in perpetuity.

The museum's Vickers Viking is an early production model and was delivered to British European Airways (BEA) as G-AHOT *Valkyrie* in September 1946. It saw service with BEA for less than two years and later participated in the Berlin Airlift. After passing through a number of small airlines, it was acquired by Trek Airways in September 1954 as ZS-DKH and operated in Protea Airways colors on leisurely and scenic passenger flights between South Africa and Europe. Retired from airline service in 1962, it was positioned atop "Vic's Viking Garage" in January 1963, where it became a famous, if forlorn, landmark. In March 1987, it was donated to the South African Airways Museum. Stored outdoors at OR Tambo until January 2017, it was moved to the museum where a lengthy restoration project began. The wings of early model Vikings were fabric covered and, for the time being, the wings have been left uncovered to illustrate the aircraft's interesting wing structure. Keith Lennard, who was project leader on the aircraft's restoration, gave us a tour of the aircraft and his handiwork. Unfortunately there is no hangar space currently available and the aircraft is on display in the museum's outdoor airpark.

Lodestar ZS-ASN *Andries Pretorius* and de Havilland DH.104 Dove ZS-BCC *Katberg* are displayed in the museum's hangar. As noted previously, these were the first two aircraft to be acquired by SAA for the company's vintage aircraft collection and both have been beautifully restored. ZS-ASN was delivered to SAA in 1939 and impressed into wartime service by the SAAF in 1941. Returned to SAA after the war, the Lodestar made its last flight with the airline in March 1955 and was converted to perform aerial survey work throughout Africa. Donated to SAA in December 1973, it was restored by the SAA Apprentice School and made its



Keith Lennard led the restoration of the Vickers Viking. It is in Protea Airways markings. The fabric-covered wing has been left uncovered to display the geodesic construction developed by Sir Barnes Wallis.

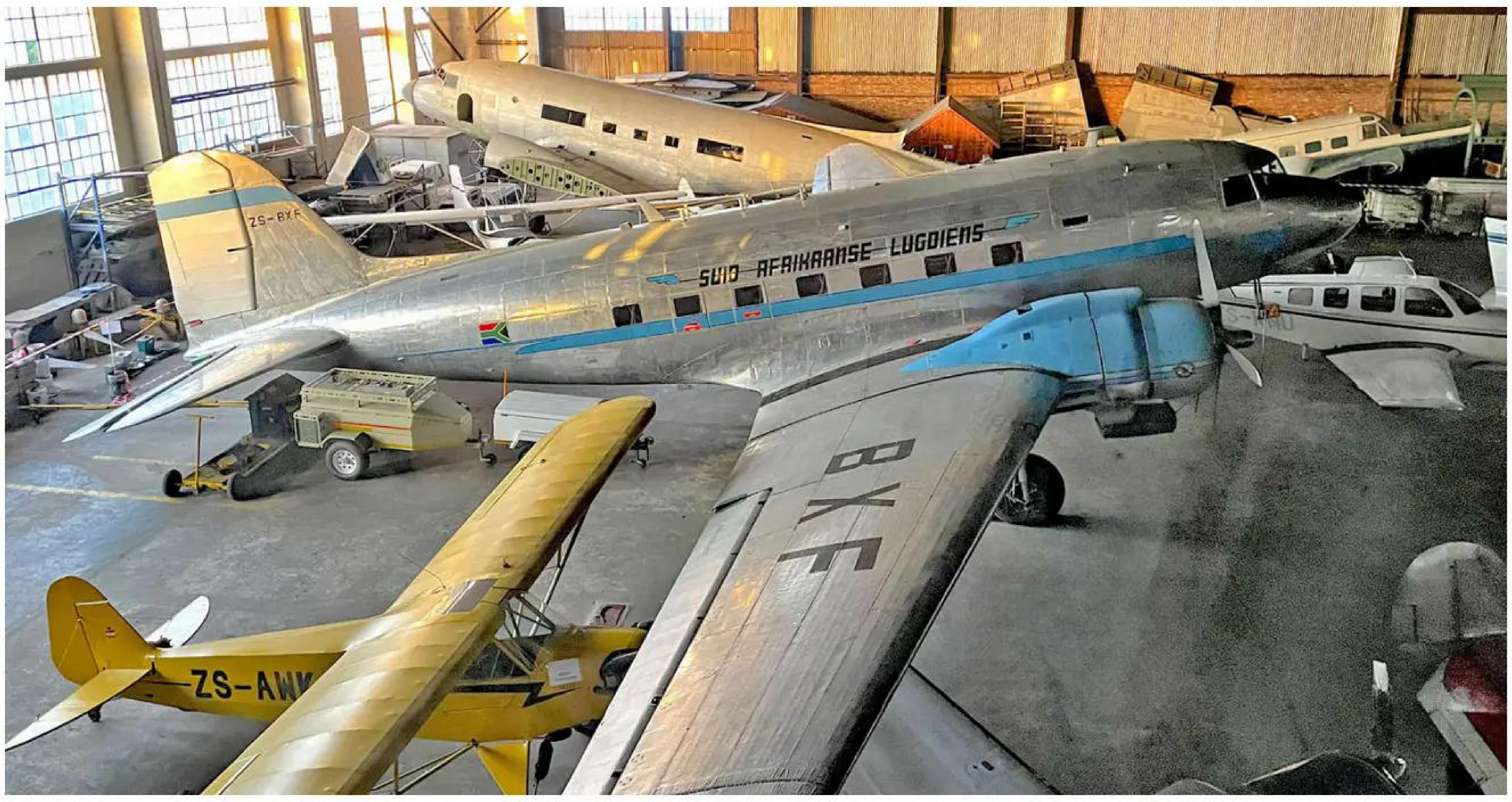
first public appearance in October 1975. Stored outdoors from April 1999 at Swartkop, it was moved to Rand in 2004 and underwent a second restoration.

ZS-BCC was delivered to SAA in 1947 but only served the airline until 1951, when it was sold to a Rhodesian company. The airline reconnected with the aircraft when it was discovered at Biggin Hill Airfield in England after being used as a source of spare parts. Disassembly began in October 1978, with the first sections departing for South Africa in the belly of a SAA B747 in February 1979. The Dove was restored at the SAA Apprentice School and placed on display. Moved to Swartkop in April 1999, it was stored outdoors and, in August 2004, it was disassembled and moved to Rand where it was reassembled and placed on display at the museum's airpark. In May 2017 it was moved to the hangar, restored and placed on display in pristine condition.

In addition to the Propliners, four aircraft of more modern vintage on display at the museum include B737-219 ZS-SMD *Pukeko*; SAA's first B747-244 ZS-SAN *Lebombo*; B747SP ZS-SPC *Maluti*; and the forward fuselage of B707-344C ZS-SAI *East London*. Matt Harvey provided a private tour of the B747SP, which included an opportunity to sit in the left seat!

STARLINER
Crew

Museum chairman John "Jaws" Austin-Williams along with volunteers Keith Lennard and Mike Paterson onboard the Starliner. Mike focuses his efforts on the Starliner while Keith was responsible for much of the Viking's restoration work.



The 1930s-era former SAA hangar was packed with aircraft. DC-ZS-BXF is in the foreground with the partially disassembled DC-3 behind.

PHOEBUS APOLLO AVIATION

Phoebus Apollo Aviation is a long-time tenant at Rand and parked near the company's hangar were DC-4/C-54M ZS-PAI *Atlas*; Carvair 9J-PAA; and DC-9-32 ZS-PAK. ZS-PAI was delivered to the USAAF as C-54E 44-9093 in 1945. Retired in 1973 and stored at Davis-Monthan AFB, it was sold to Aero Union as N4989K in 1978. Later operated by a number of small US airlines, it was acquired by Phoebus Apollo Investments in September 1998 and registered ZS-PAI. The DC-4 was active with Phoebus Apollo through at least January 2007 and it has obviously been out of service for some time.

9J-PAA was the 21st and final of Freddy Laker's ATL-98 Carvair conversion. Although ordered by the USAAF and assigned serial 44-9088, I don't believe it saw military service before being sold in 1945 to Douglas Aircraft for conversion to a civilian DC-4. Registered N88881, it flew for Pan American, Japan Airlines (JA6015), and Ansett-ANA (VH-INM), who had it converted to the unusual Carvair in 1968. It later saw service with a number of smaller freight haulers in the Far East, New Zealand, and Hawaii before being acquired by Phoebus Apollo Investments in May 2002 and registered 9J-PAA. Operated by Phoebus Apollo for a short time, it was advertised for sale in May 2003 for $250,000. Airworthy until at least the mid-2000s, the aircraft was noted minus its #1 and #2 propellers along with its #3 and #4 engines from 2006 to 2009. Engines and propellers were reinstalled by April 2009 and the aircraft appeared externally complete during my visit, but it's obvious that it hasn't flown in years. Phoebus Apollo's DC-3 ZS-DIW *Pegasus* is stored in a private hangar and I was not able to see it.

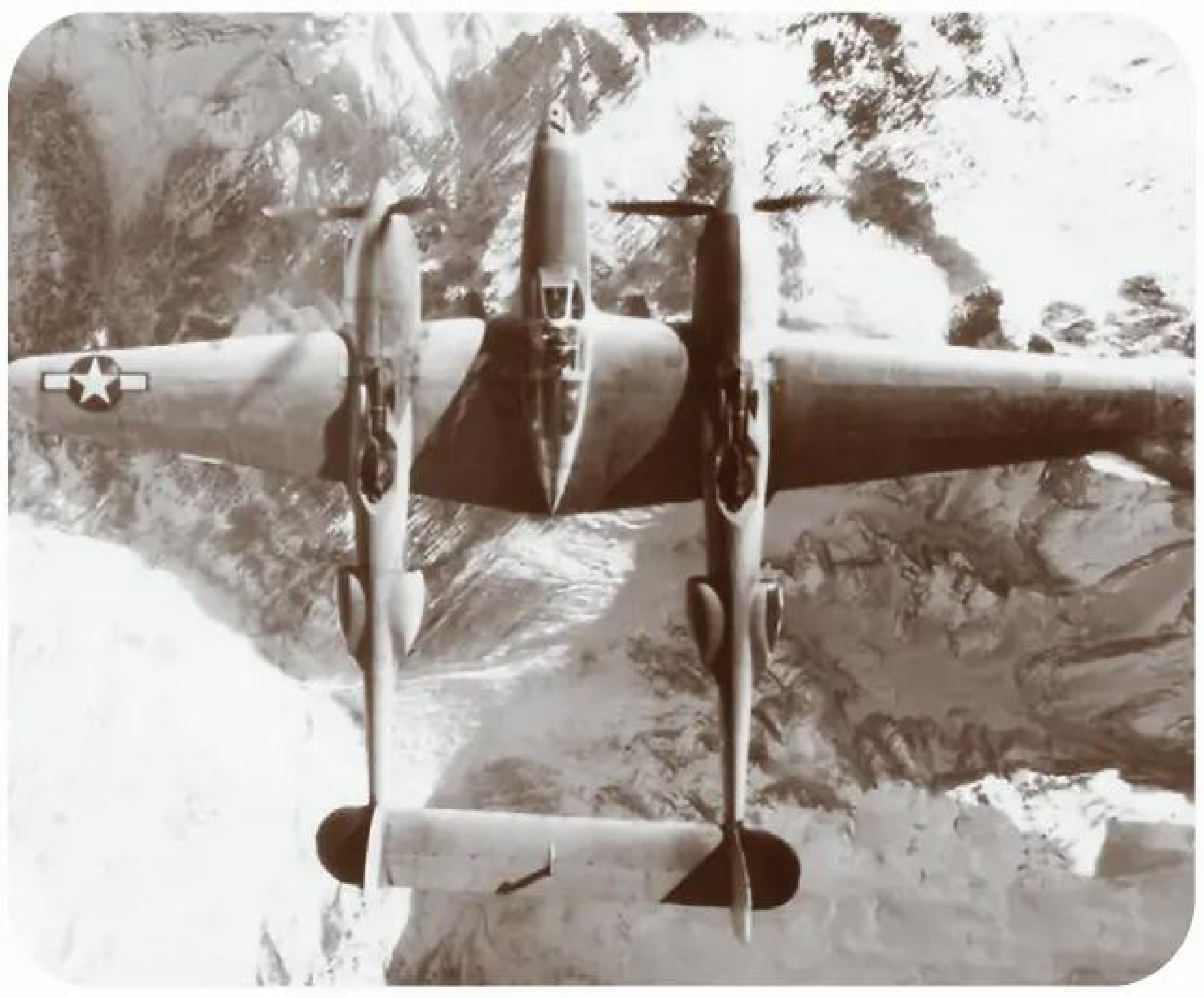
All too soon it was time to catch our ride back to Johannesburg, where we spent the night before flying to Cape Town to rejoin our cruise ship. I'd like to thank Captain Vermeulen for arranging our stay at the Dakota Lounge and facilitating the visit along with brothers Tim and Caleb at Springbok Classic Air for being outstanding tour guides. The folks at the museum were all wonderful and I'd like to thank them all for making our visit a memorable occasion. Special thanks to Jaws for taking time during the very busy open house to arrange for the personal tours; Keith Lennard for giving us a tour of the Viking; Mike Paterson for opening up the Starliner for us to have a look at; and Matt Harvey for showing us around the amazing B747SP. I'd also like to thank my wife who convinced me that we needed to make the trip and then spending almost a full day at Rand checking out airplanes and meeting our new South African friends. For more information about these fine organizations, check out the Springbok Classic Air and South African Airways Museum websites:

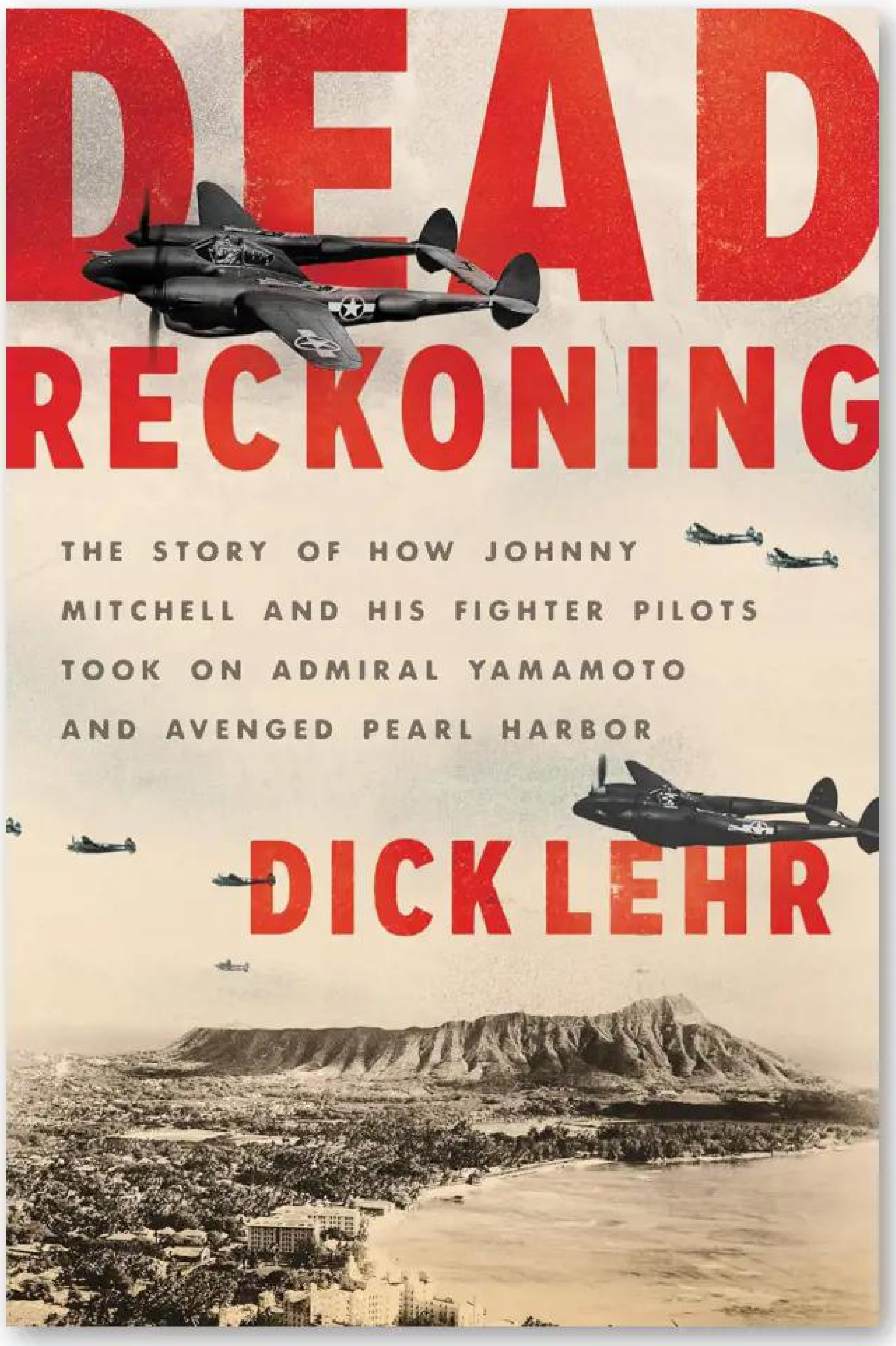
- South African Airways Museum website *saamuseum.co.za.*
- Springbok Classic Air website *springbokclassicair.co.za.*

AC

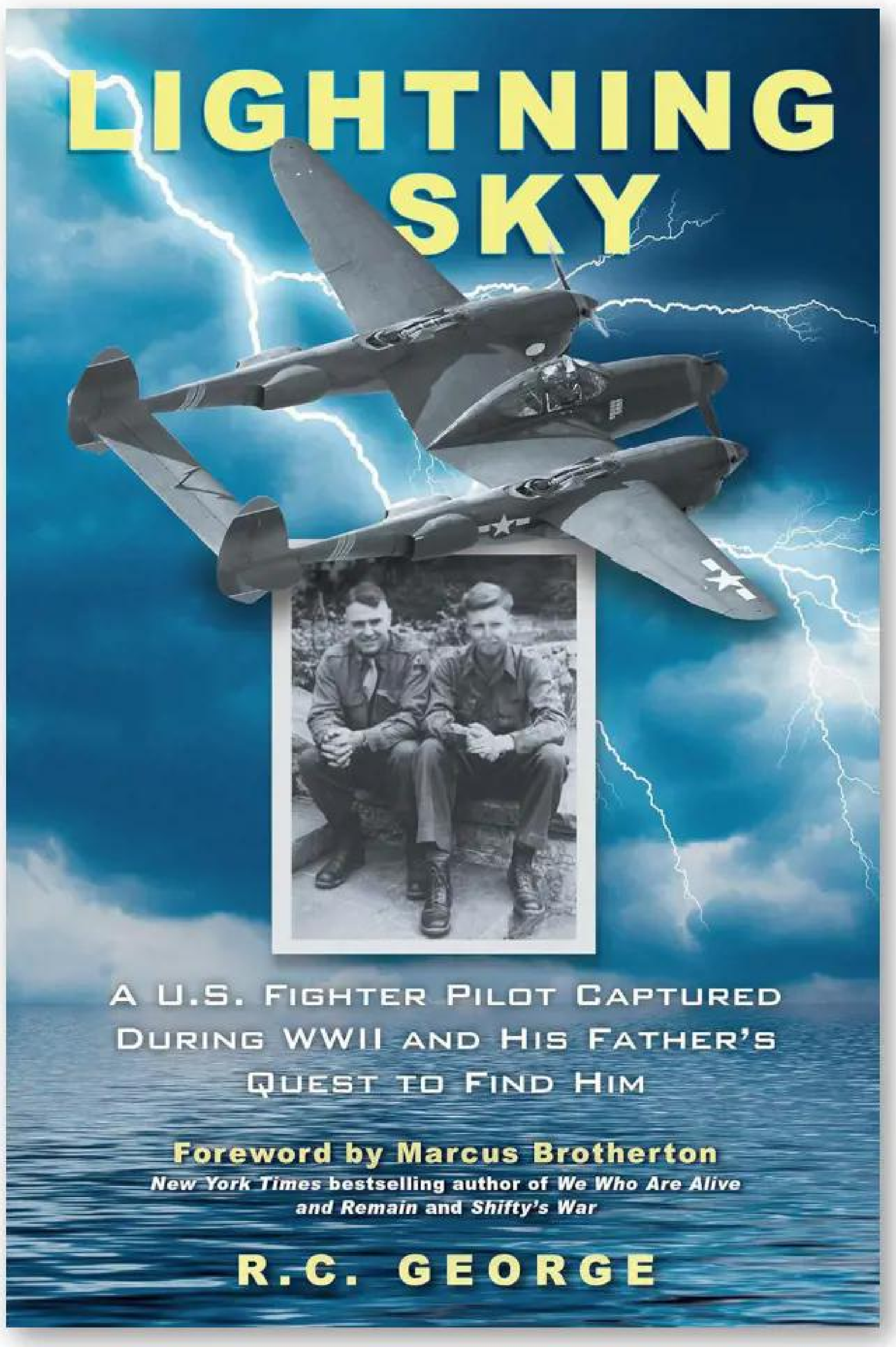
NEW TITLES FROM THE
AVIATION BOOK CLUB!

The Aviation Book Club (ABC) is pleased to present an extensive selection of books that will fit into any discerning aviation library. All books are carefully chosen by our staff and our contributors. Also, we are also offering great discounts for this Christmas Season!

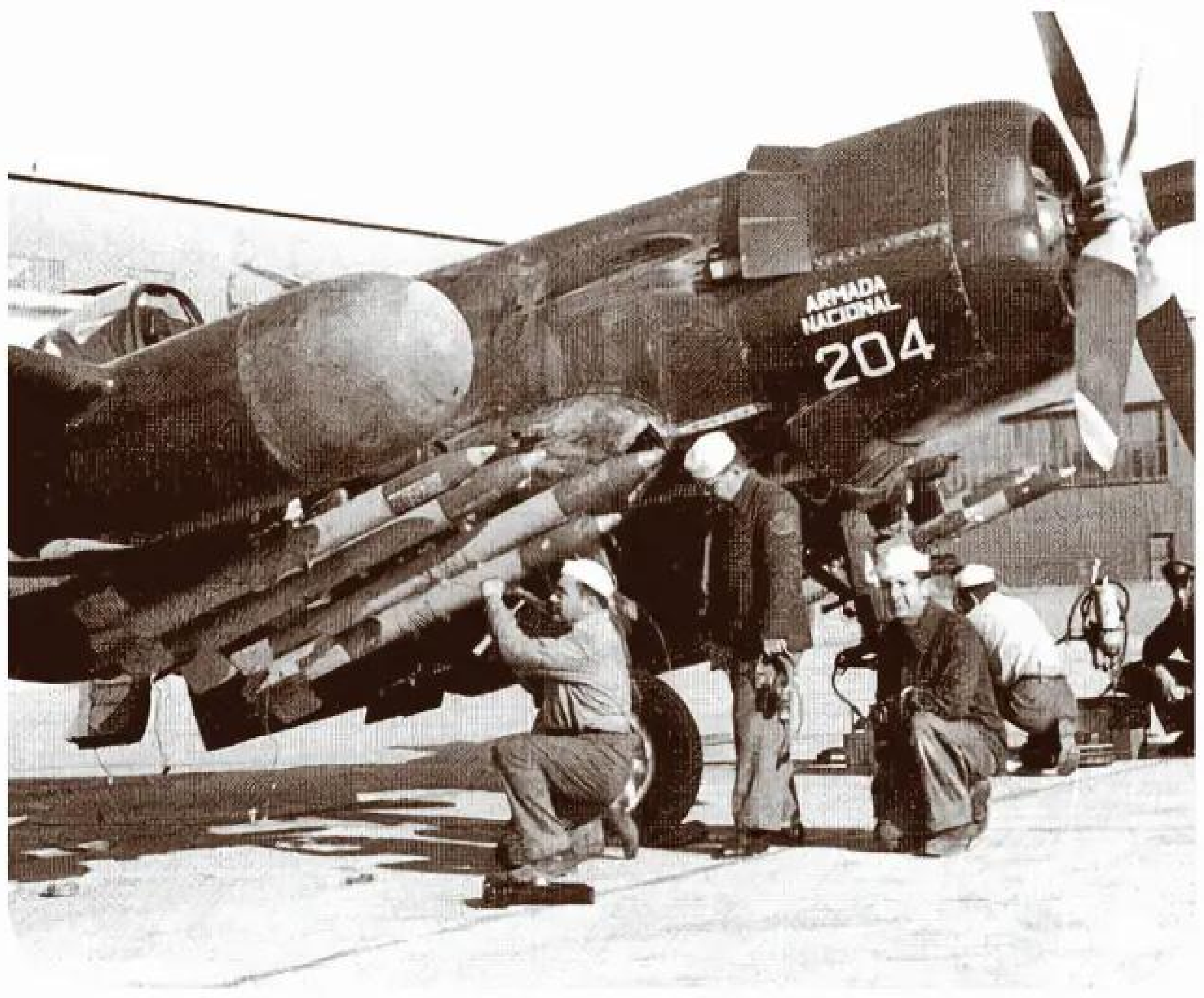


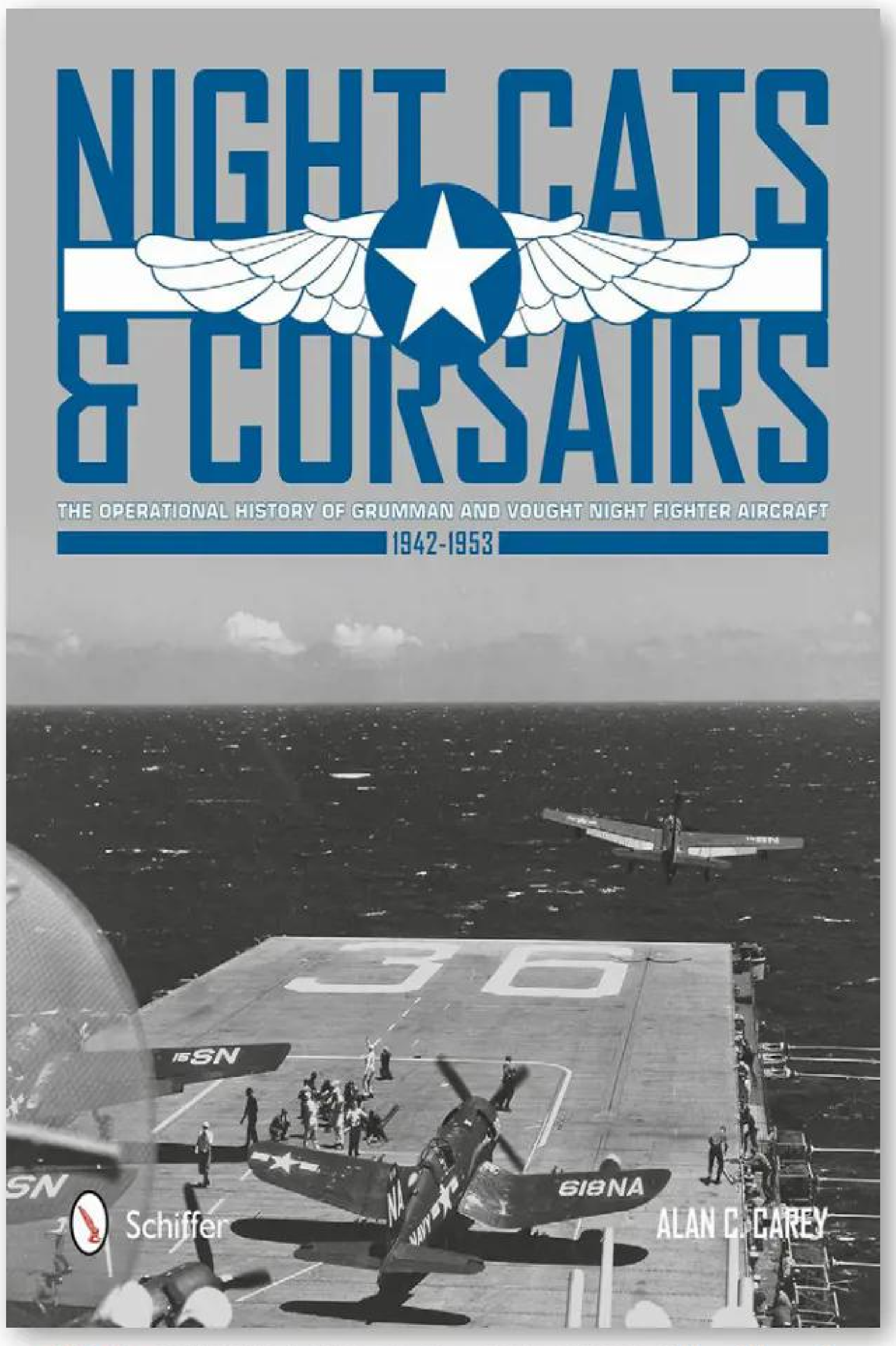

DEAD
RECKONING
THE STORY OF HOW JOHNNY MITCHELL AND HIS FIGHTER PILOTS TOOK ON ADMIRAL YAMAMOTO AND AVENGED PEARL HARBOR
DICK LEHR

001: DEAD RECKONING by Dick Lehr. Hardbound, 400 pages. How Johnny Mitchell and his P-38 fighter pilots killed Adm. Yamamoto and avenged Pearl Harbor. PUB AT $28.99, NOW $21

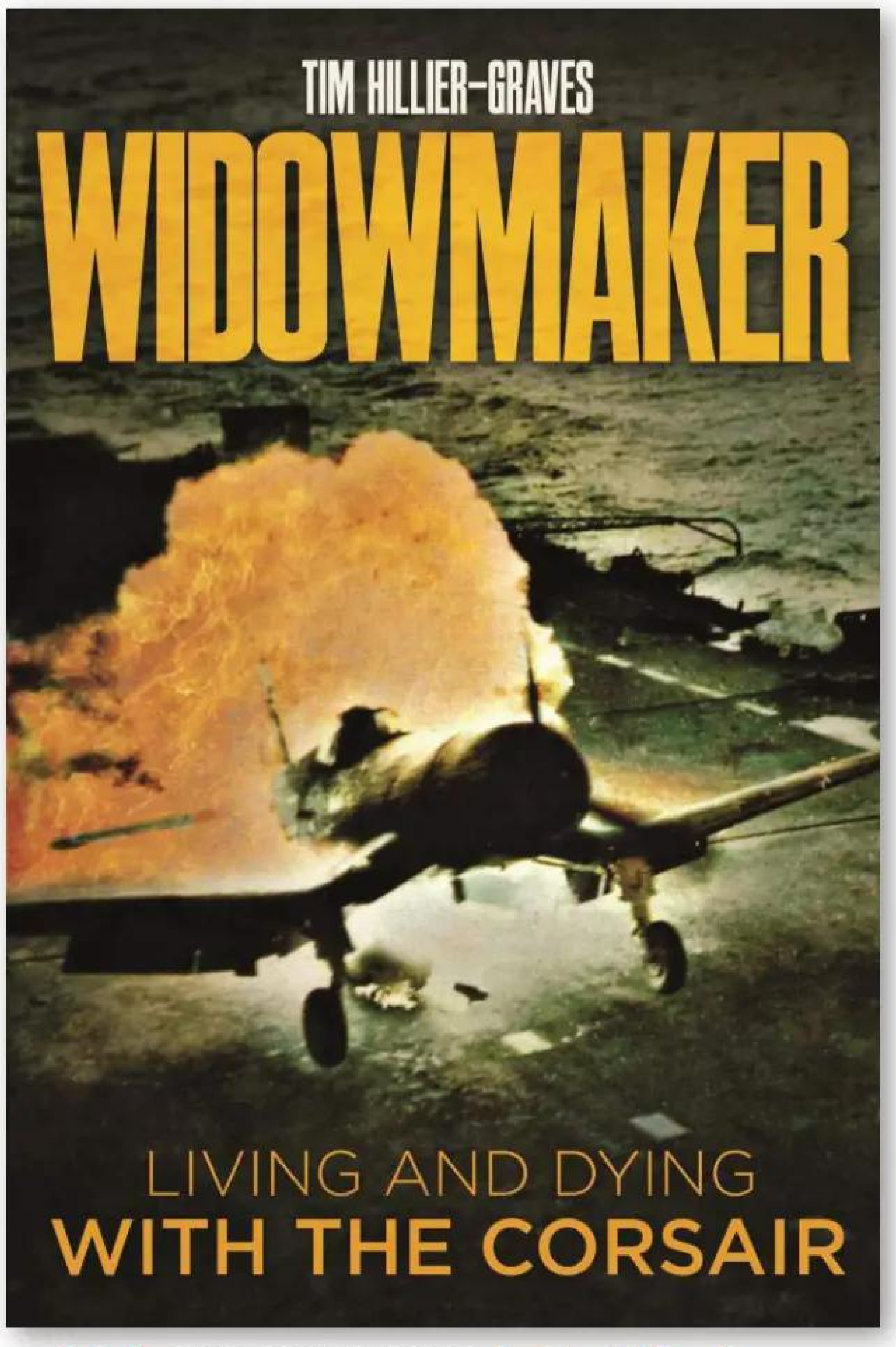

LIGHTNING SKY
A U.S. Fighter Pilot Captured During WWII and His Father's Quest to Find Him
Foreword by Marcus Brotherton
New York Times bestselling author of We Who Are Alive and Remain and Shifty's War
R.C. GEORGE

002: LIGHTNING SKY by R.C. George. Hardbound, 290 pages. The story of a WWII P-38 fighter pilot captured by the enemy and his father's quest to find him. PUB AT $26, NOW $19


ARMADA NACIONAL
204


NIGHT CATS & CORSAIRS
THE OPERATIONAL HISTORY OF GRUMMAN AND VOUGHT NIGHT FIGHTER AIRCRAFT
1942-1953
Schiffer
ALAN C. CAREY

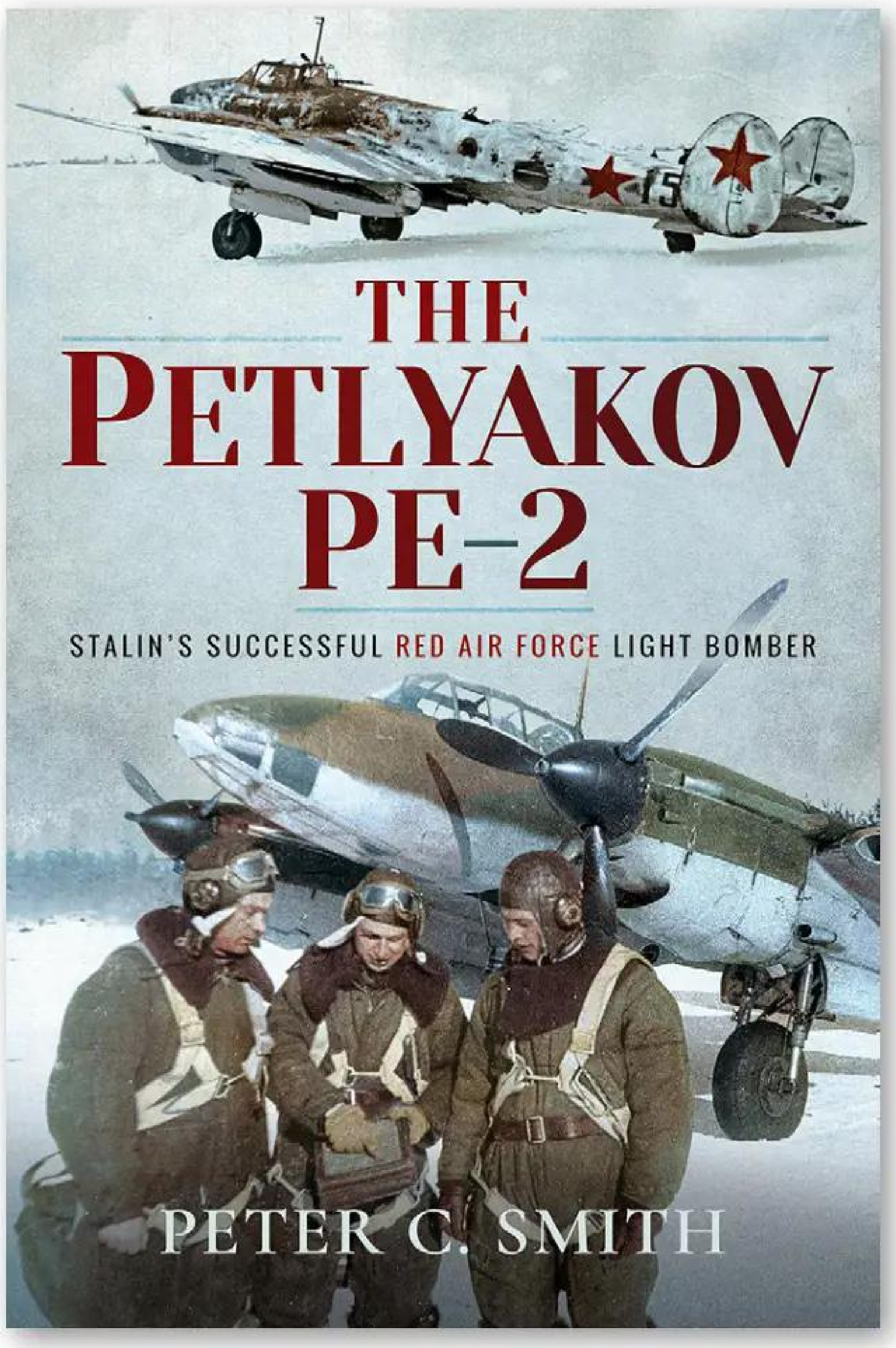
003: NIGHT CATS & CORSAIRS by Alan C. Carey. Hardbound, 216 Pages. Operational history of the Hellcat and Corsair night-fighters of WWII and Korea. PUB AT $49.99, NOW $38


TIM HILLIER-GRAVES
WIDOWMAKER
LIVING AND DYING WITH THE CORSAIR

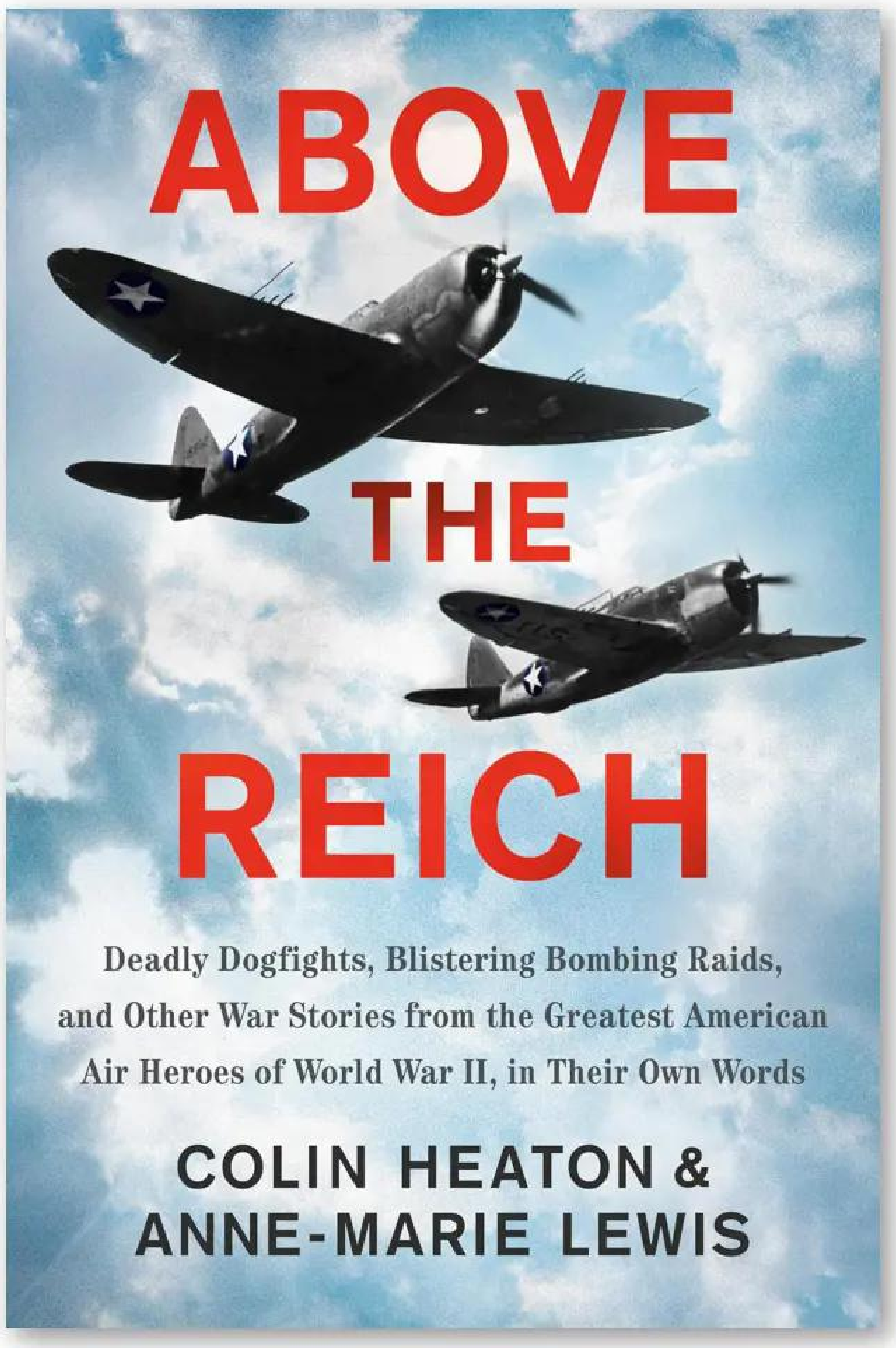
004: WIDOWMAKER by Tim Hillier-Graves. Hardbound, 202 pages. Interviews with Royal Navy, Commonwealth, and US Navy pilots that flew the mighty Vought Corsair. PUB AT $34.95, NOW $27

EXTRA DISCOUNT!

BUY OVER $100 AND TAKE OFF AN ***ADDITIONAL 10%***


THE
PETLYAKOV
PE-2
STALIN'S SUCCESSFUL RED AIR FORCE LIGHT BOMBER
PETER C. SMITH

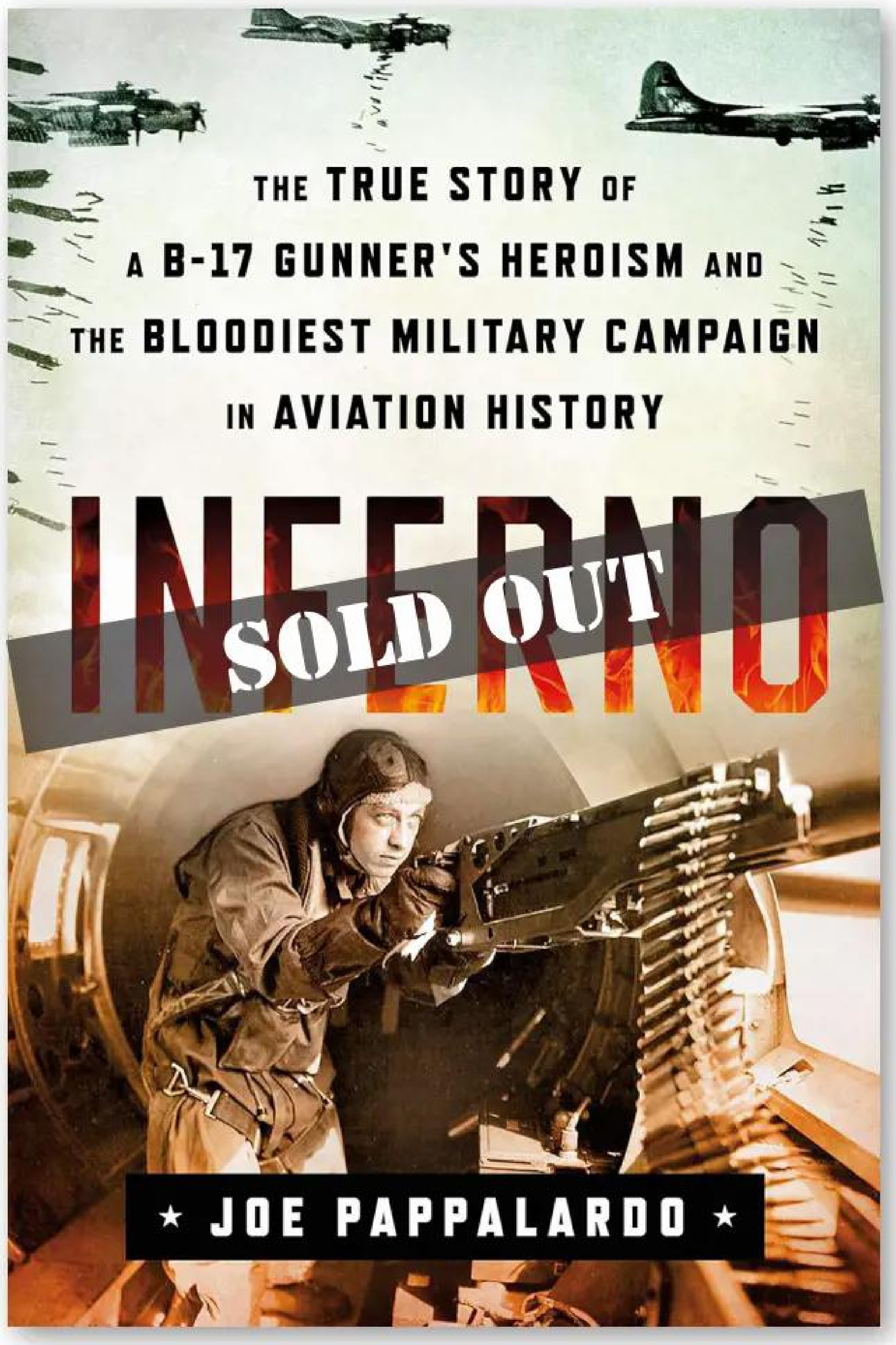
005: THE PETLYAKOV PE-2 by Peter C. Smith. Hardbound, 436 pages. For the first time, the complete history of the Red Air Force's most successful light bomber. PUB AT $42.95, NOW $32


ABOVE
THE
REICH
Deadly Dogfights, Blistering Bombing Raids, and Other War Stories from the Greatest American Air Heroes of World War II, in Their Own Words
COLIN HEATON &
ANNE-MARIE LEWIS

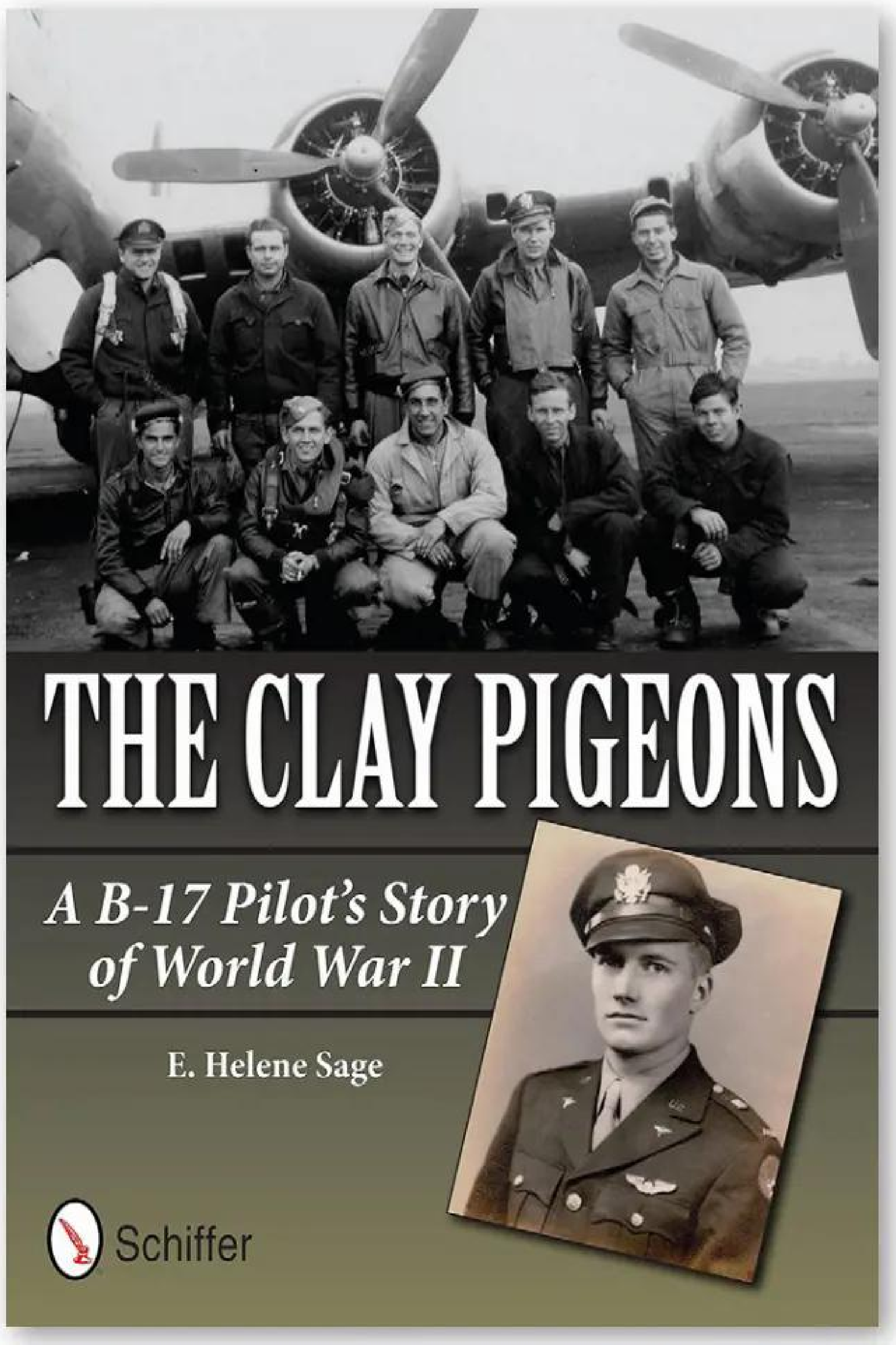
006: ABOVE THE REICH by Colin Heaton & Anne-Marie Lewis. Hardbound, 406 pages. Interviews with American aviators that took the war to Germany. PUB AT $28, NOW $21

KANGAROO
SQUADRON
SOLD OUT
AMERICAN COURAGE IN THE DARKEST DAYS OF WORLD WAR II
BRUCE GAMBLE

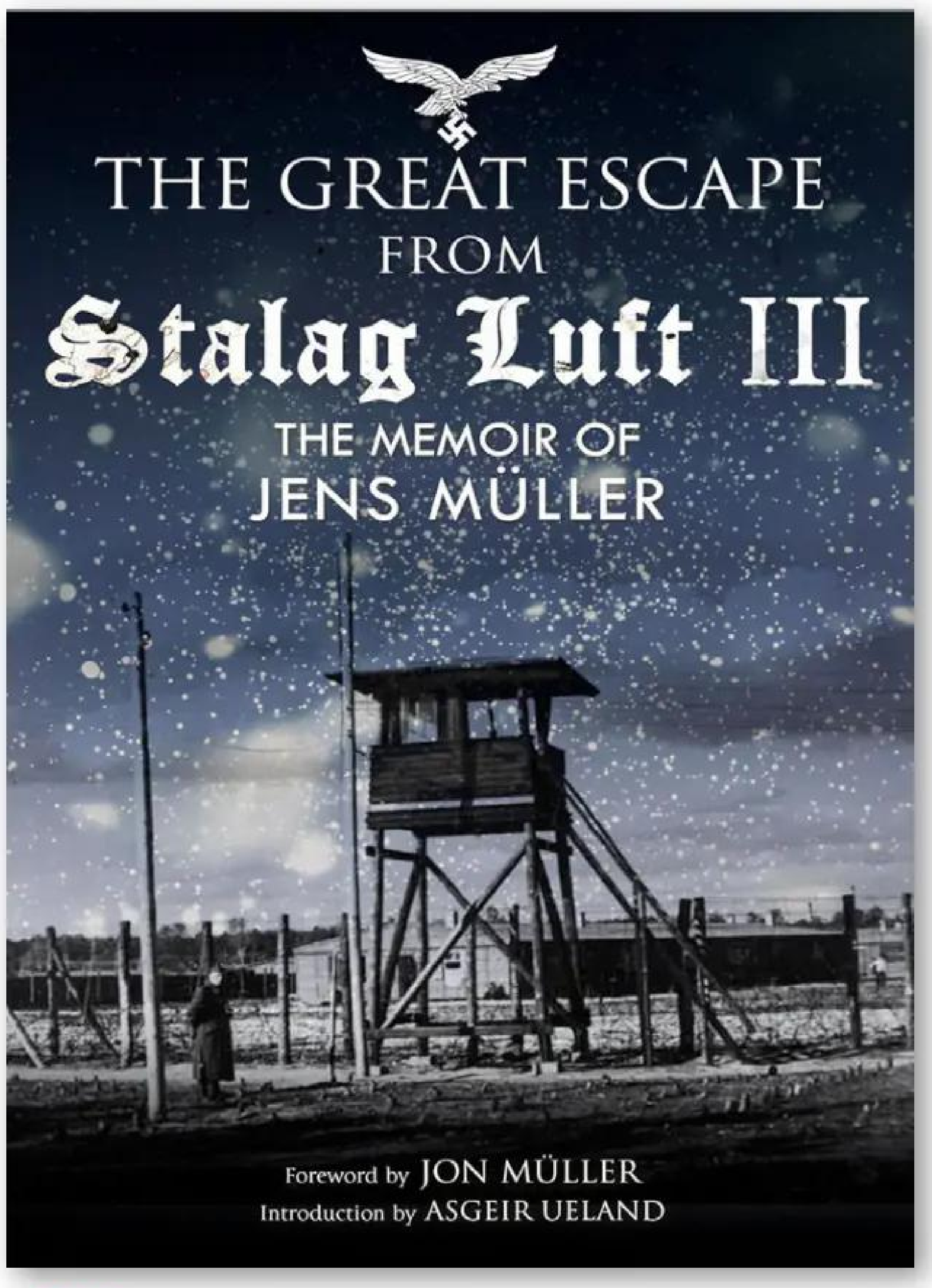
007: KANGAROO SQUADRON by Bruce Gamble. Hardbound, 400 pages. The saga of a hard-fighting B-17 squadron in the Pacific during the darkest days of WWII. PUB AT $28, NOW $21


THE TRUE STORY OF
A B-17 GUNNER'S HEROISM AND
THE BLOODIEST MILITARY CAMPAIGN
IN AVIATION HISTORY
INFERNO
SOLD OUT
★ JOE PAPPALARDO ★

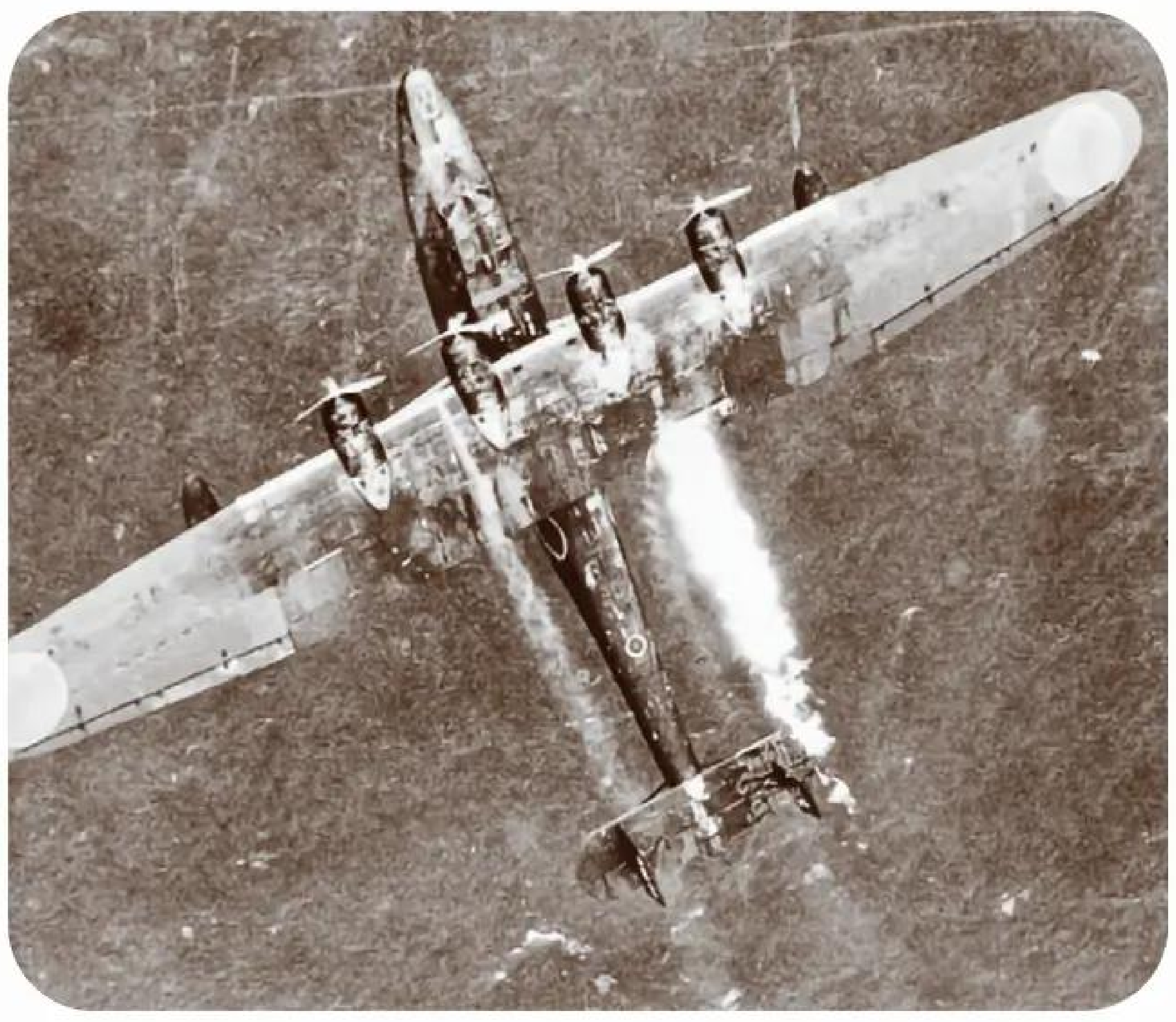
008: INFERNO by Joe Pappalaroo. Hardbound, 342 pages. True story of a B-17 gunner's heroism during the bloodiest military campaign in aviation history. PUB AT $28.99, NOW $22


THE CLAY PIGEONS
A B-17 Pilot's Story
of World War II
E. Helene Sage
Schiffer

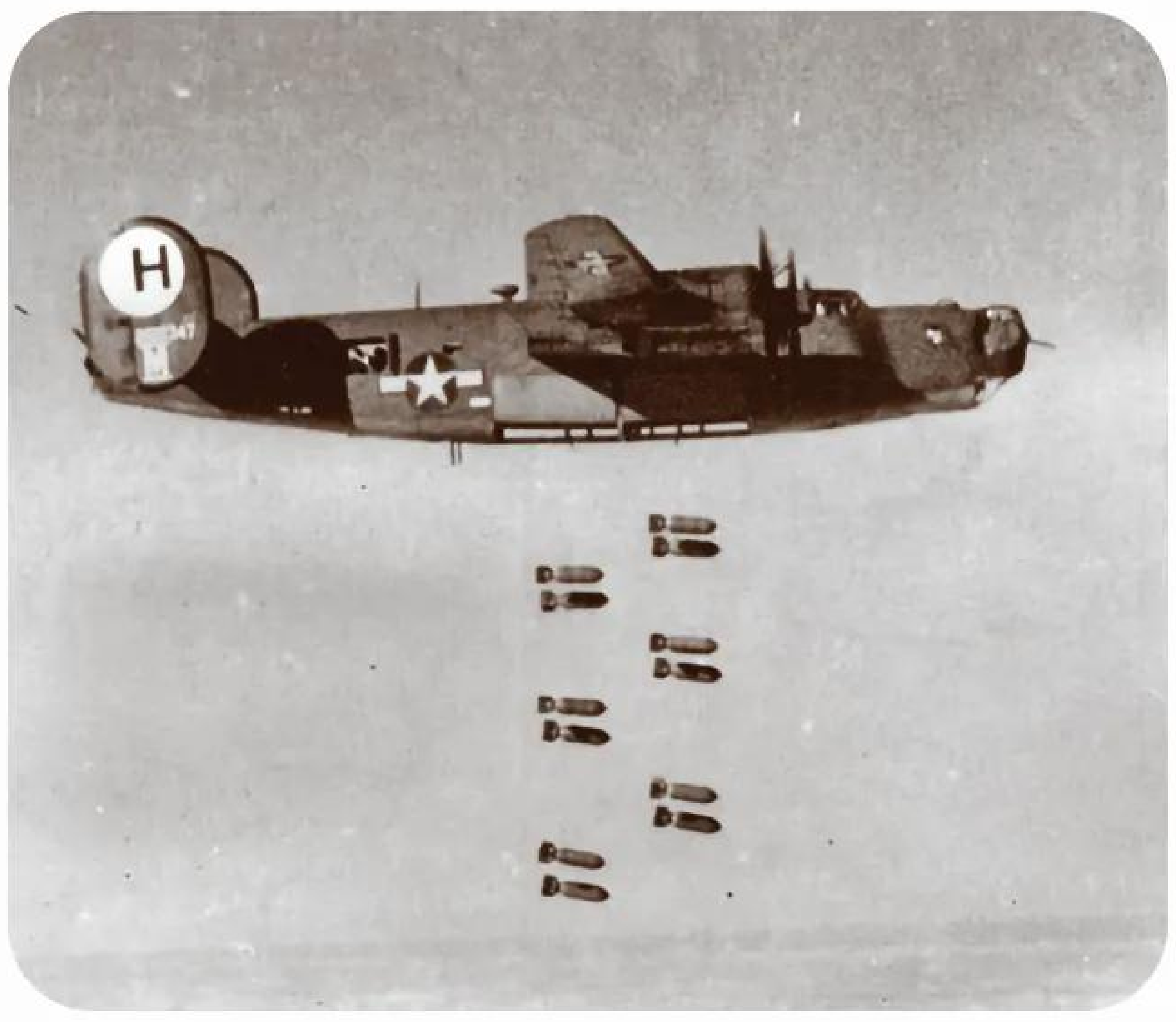
009: THE CLAY PIGEONS by E. Helene Sage. Hardbound, 158 pages. A B-17 pilot's story of life and death during WWII. PUB AT $35, NOW $26

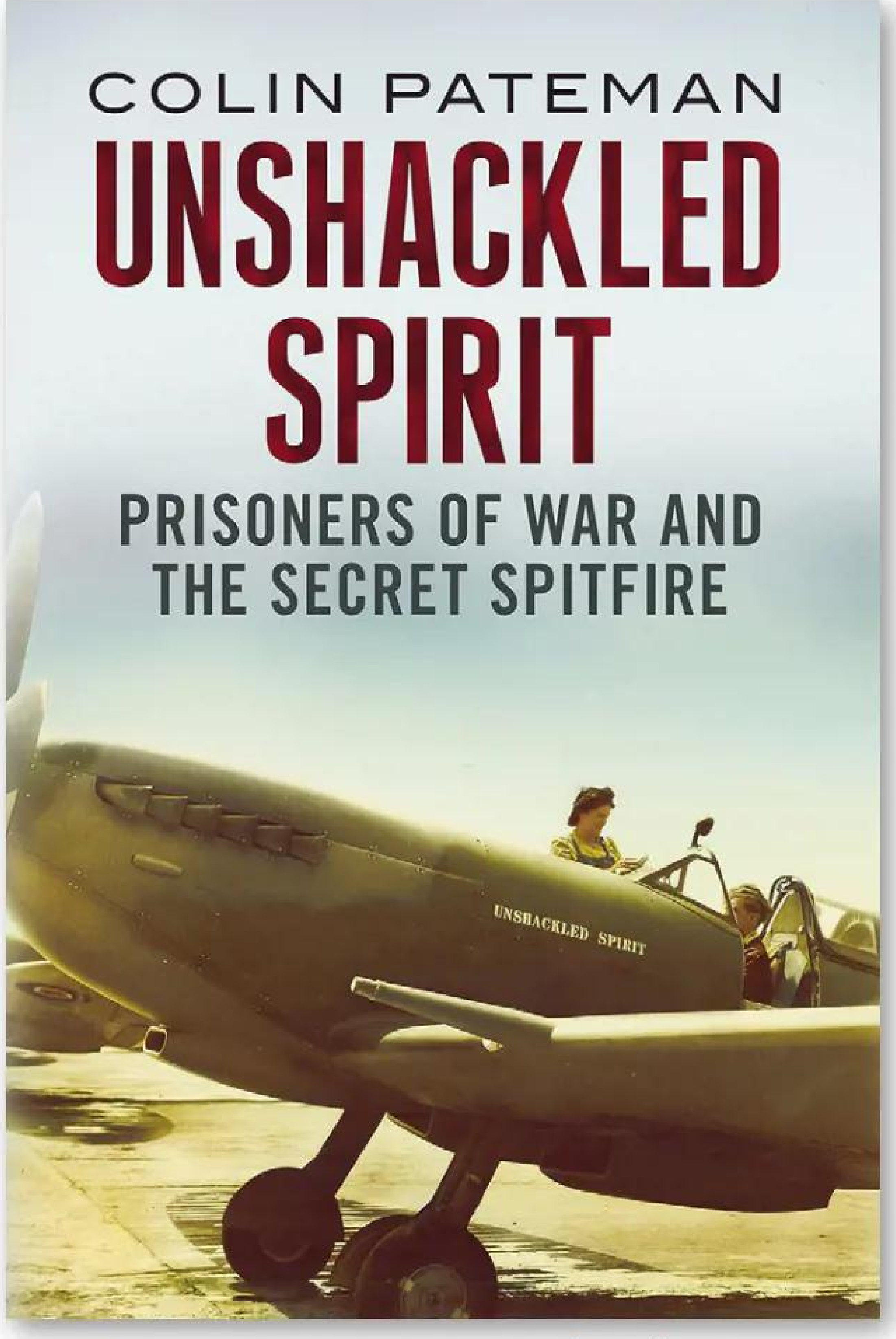

THE GREAT ESCAPE
FROM
Stalag Luft III
THE MEMOIR OF
JENS MÜLLER
Foreword by JON MÜLLER
Introduction by ASGEIR UELAND

010: THE GREAT ESCAPE FROM STALAG LUFT III by Jens Muller. Hardbound, 145 pages. Norwegian Spitfire pilot Jens Muller was shot down over the English Channel. After several days in his raft, he was captured by the Germans and would eventually escape. PUB AT $36.95, NOW $28

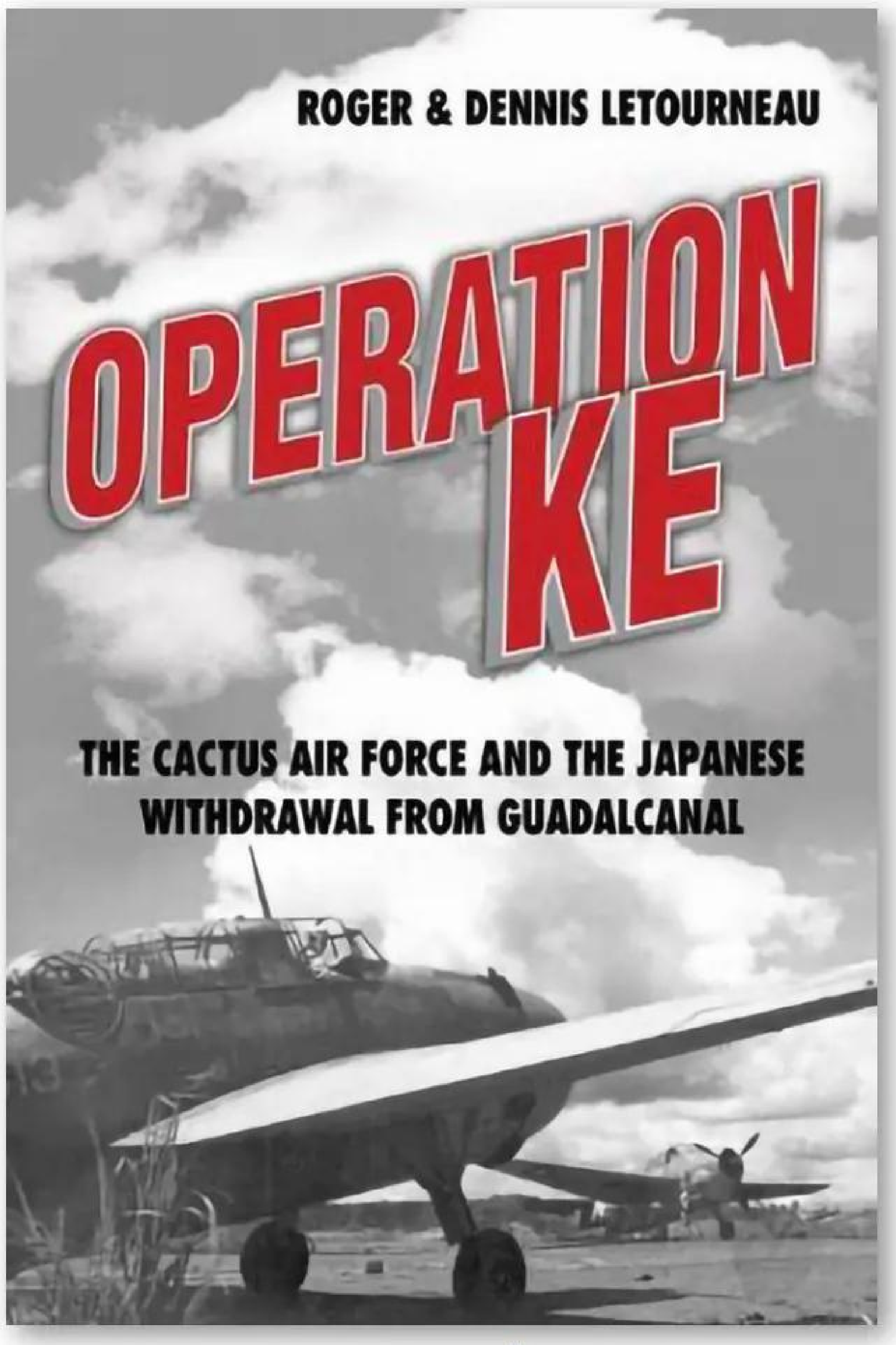


Snoot's Sniper

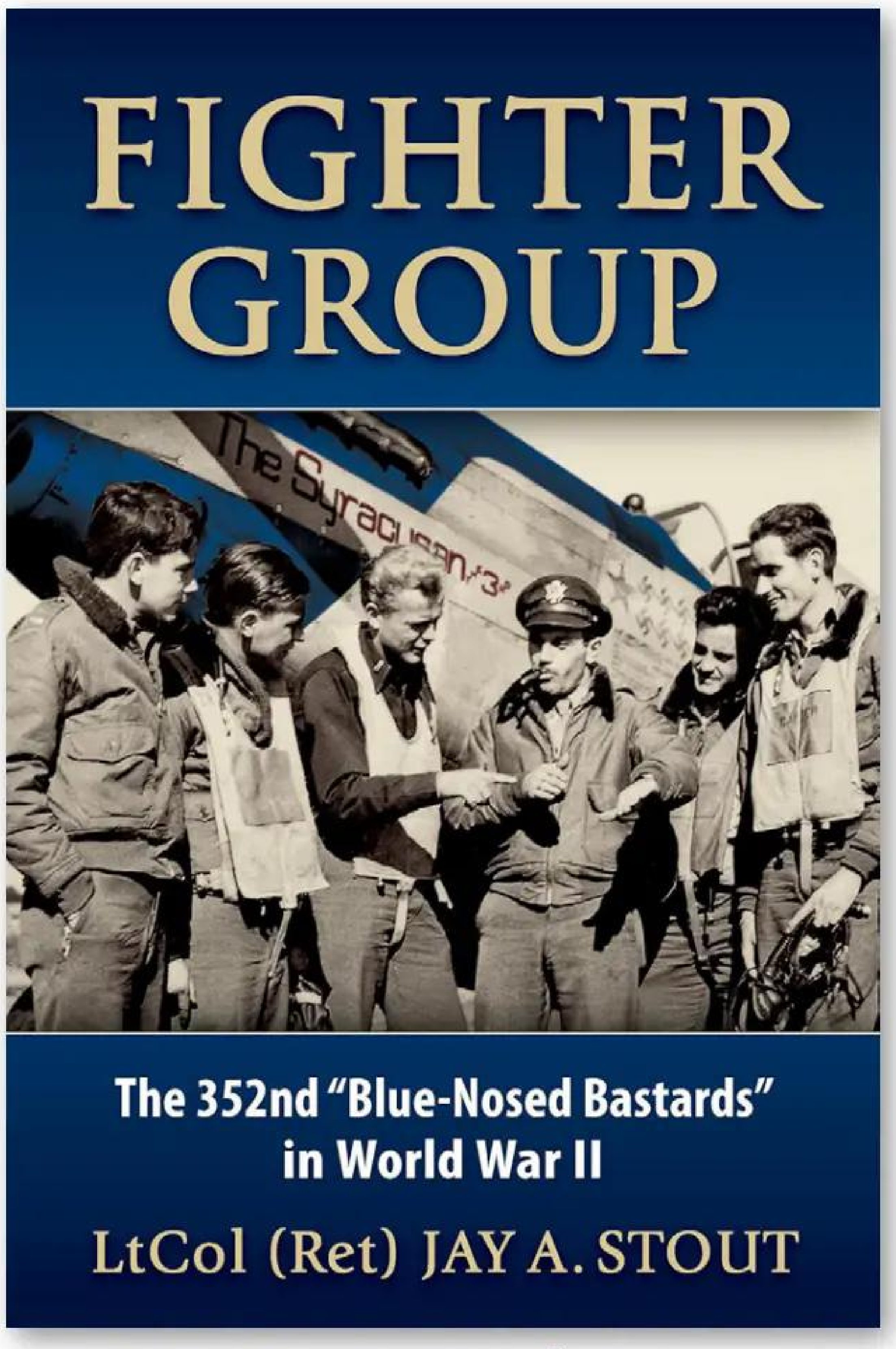



COLIN PATEMAN
UNSHACKLED SPIRIT
PRISONERS OF WAR AND THE SECRET SPITFIRE
UNSHACKLED SPIRIT

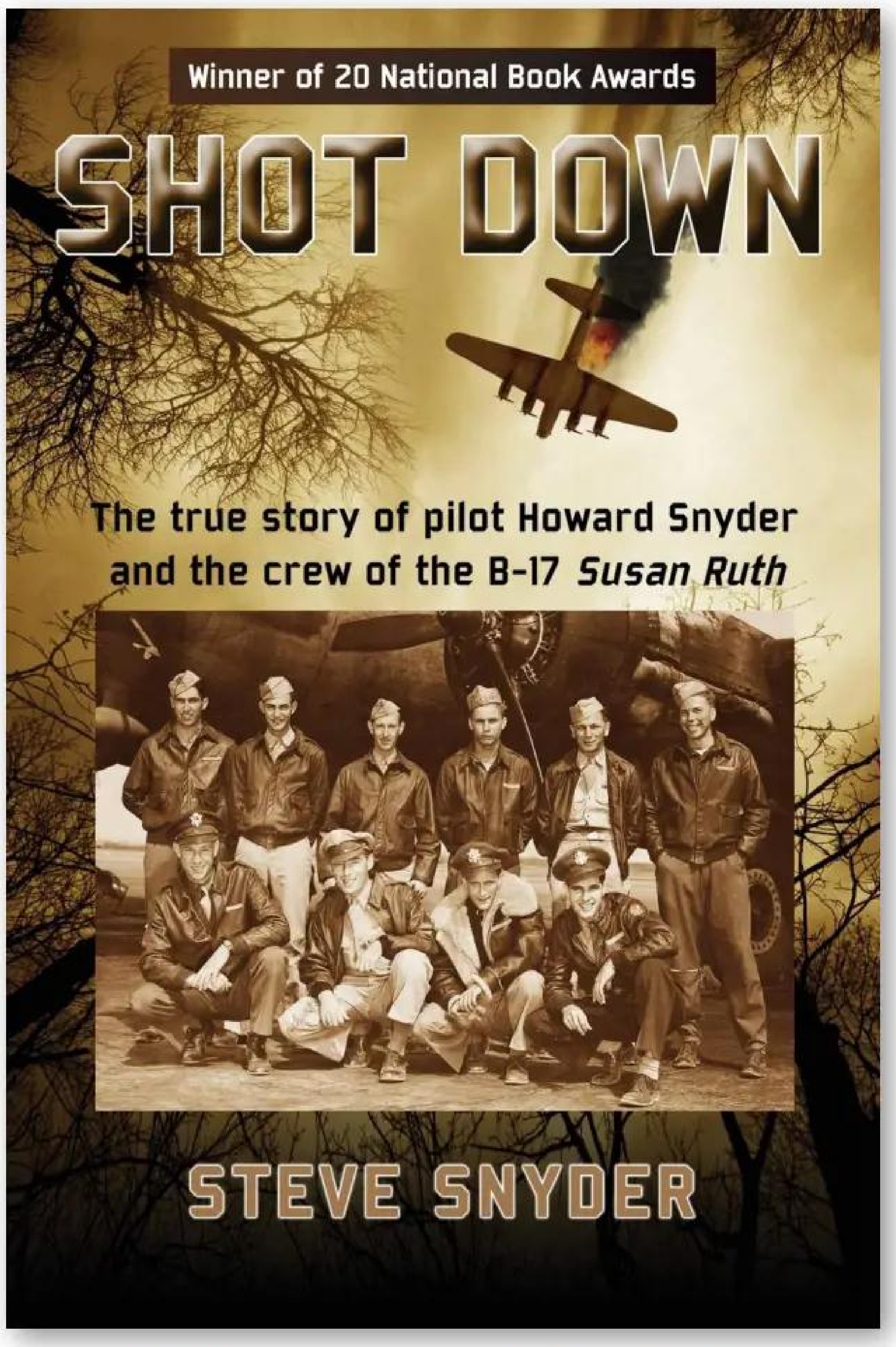
011: UNSHACKLED SPIRIT by Colin Pateman. Hardbound, 320 pages. Story of POWs and a Spitfire named *Unshackled Spirit.* PUB at $29.95, NOW $22


ROGER & DENNIS LETOURNEAU
OPERATION KE
THE CACTUS AIR FORCE AND THE JAPANESE WITHDRAWAL FROM GUADALCANAL

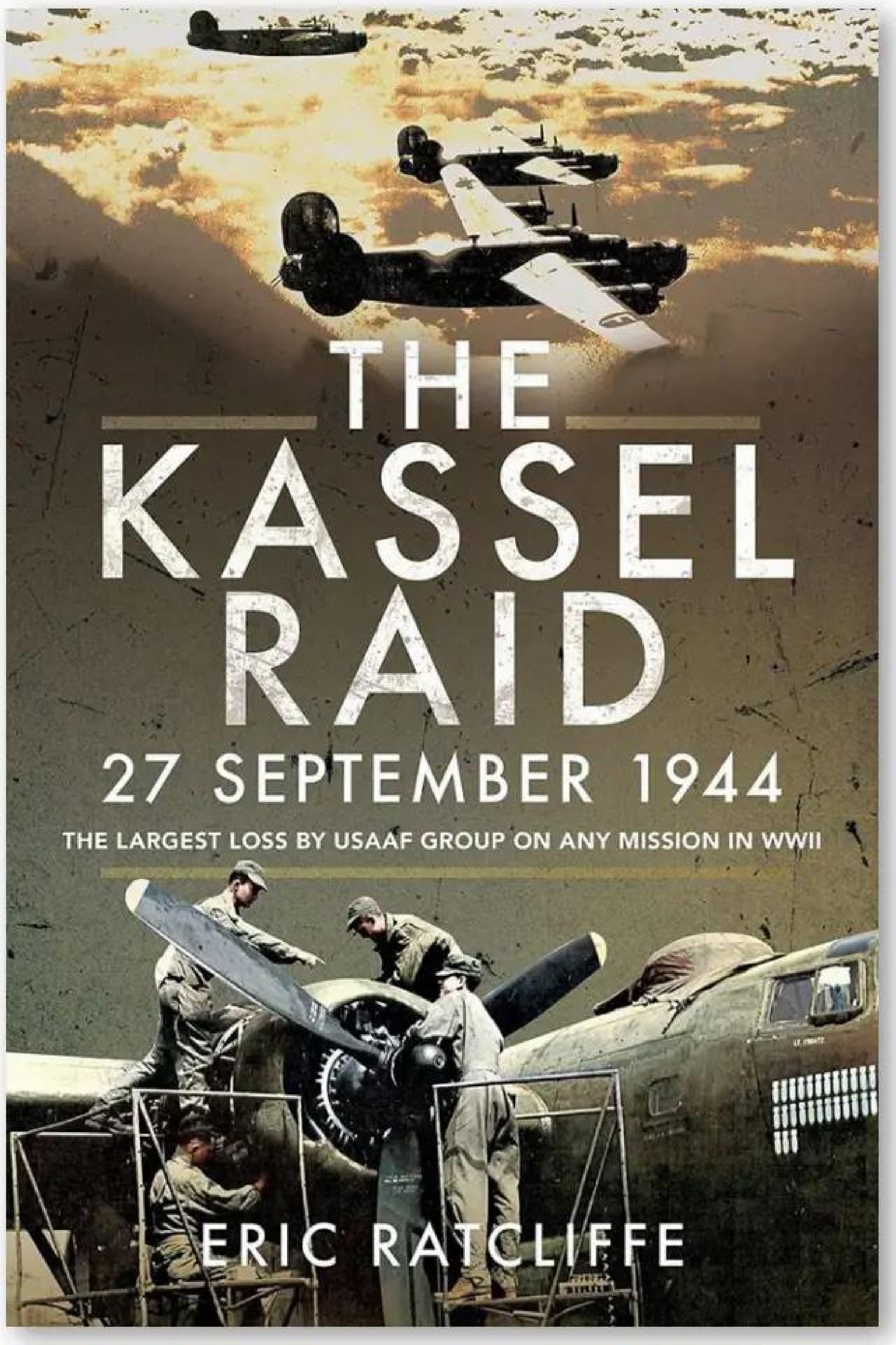
012: OPERATION KE by Roger & Dennis Letourneau. Hardbound, 370 pages. The Cactus Air Force at war on Guadalcanal and the Japanese withdrawal from that island. PUB AT $42.95, NOW $32


FIGHTER GROUP
The Syracusan/3rd
The 352nd "Blue-Nosed Bastards" in World War II
LtCol (Ret) JAY A. STOUT

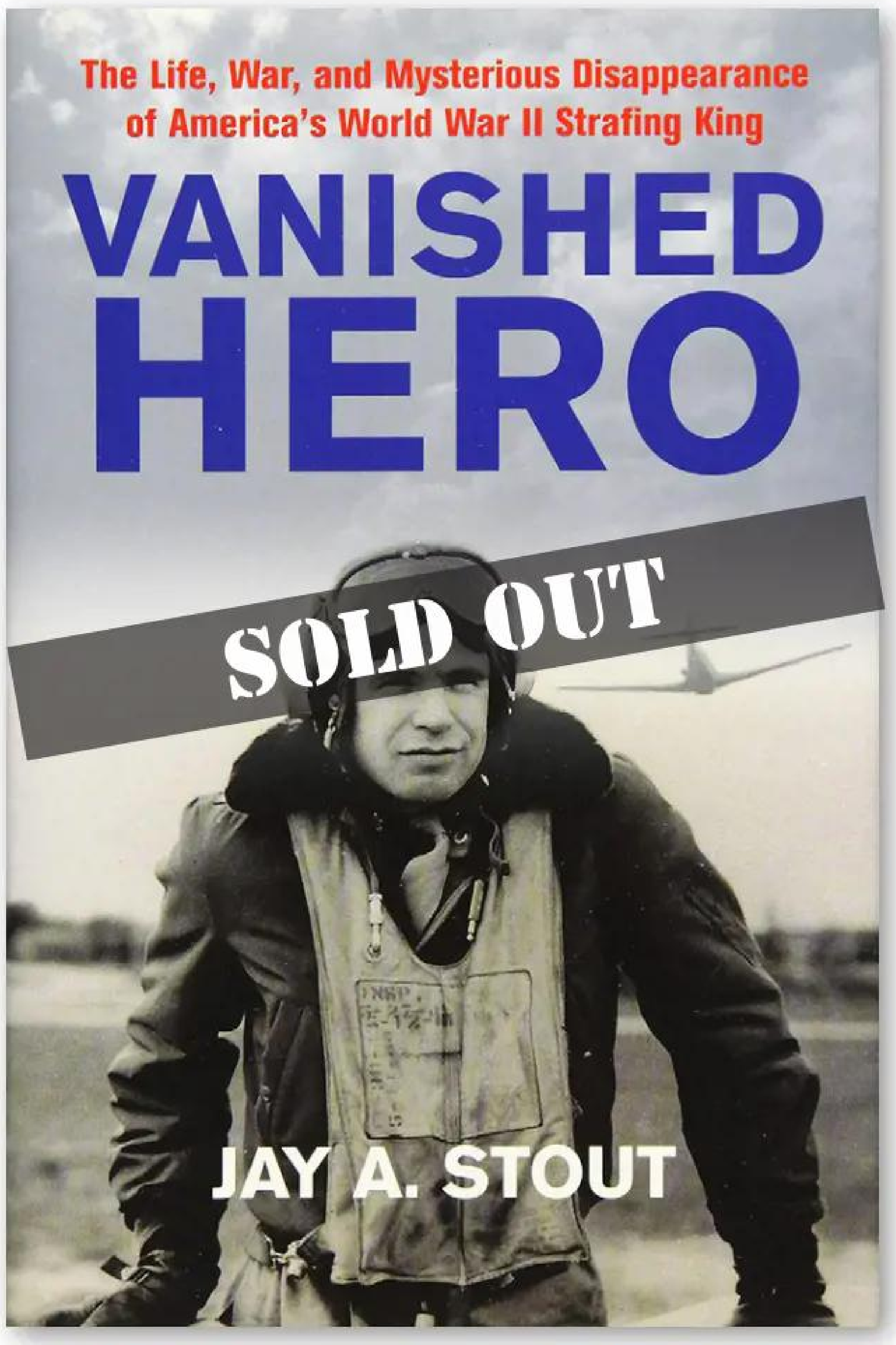
013: FIGHTER GROUP by Jay A. Stout. Softbound, 418 pages. The Mustang pilots of the 352nd Fighter Group during WWII. PUB AT $24.95, NOW $17


Winner of 20 National Book Awards
SHOT DOWN
The true story of pilot Howard Snyder and the crew of the B-17 *Susan Ruth*
STEVE SNYDER

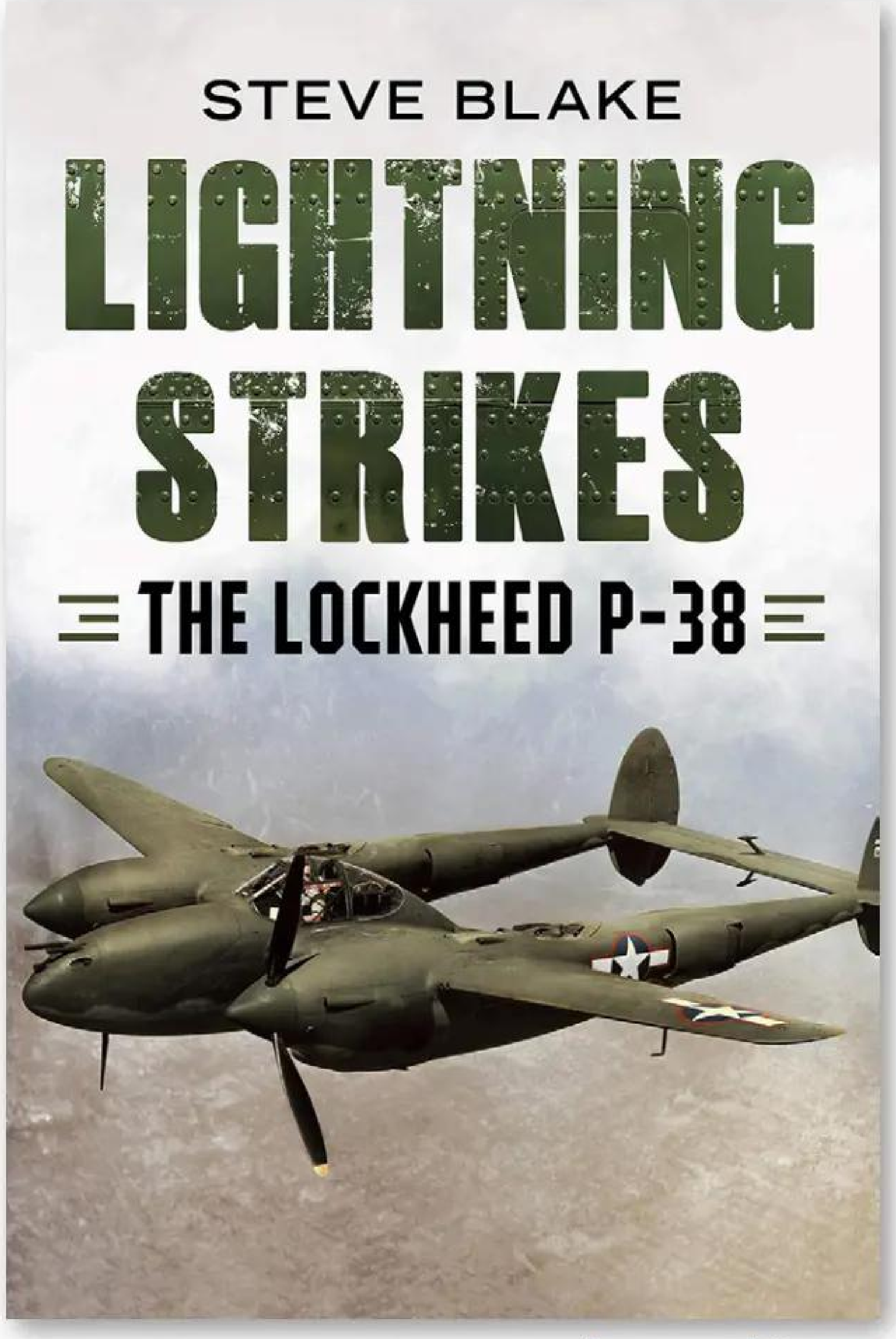
014: SHOT DOWN by Steve Snyder. Hardbound, 360 pages. True story of pilot Howard Snyder and the crew of B-17 *Susan Roth.* PUB AT $27.95, NOW $19


THE KASSEL RAID
27 SEPTEMBER 1944
THE LARGEST LOSS BY USAAF GROUP ON ANY MISSION IN WWII
ERIC RATCLIFFE

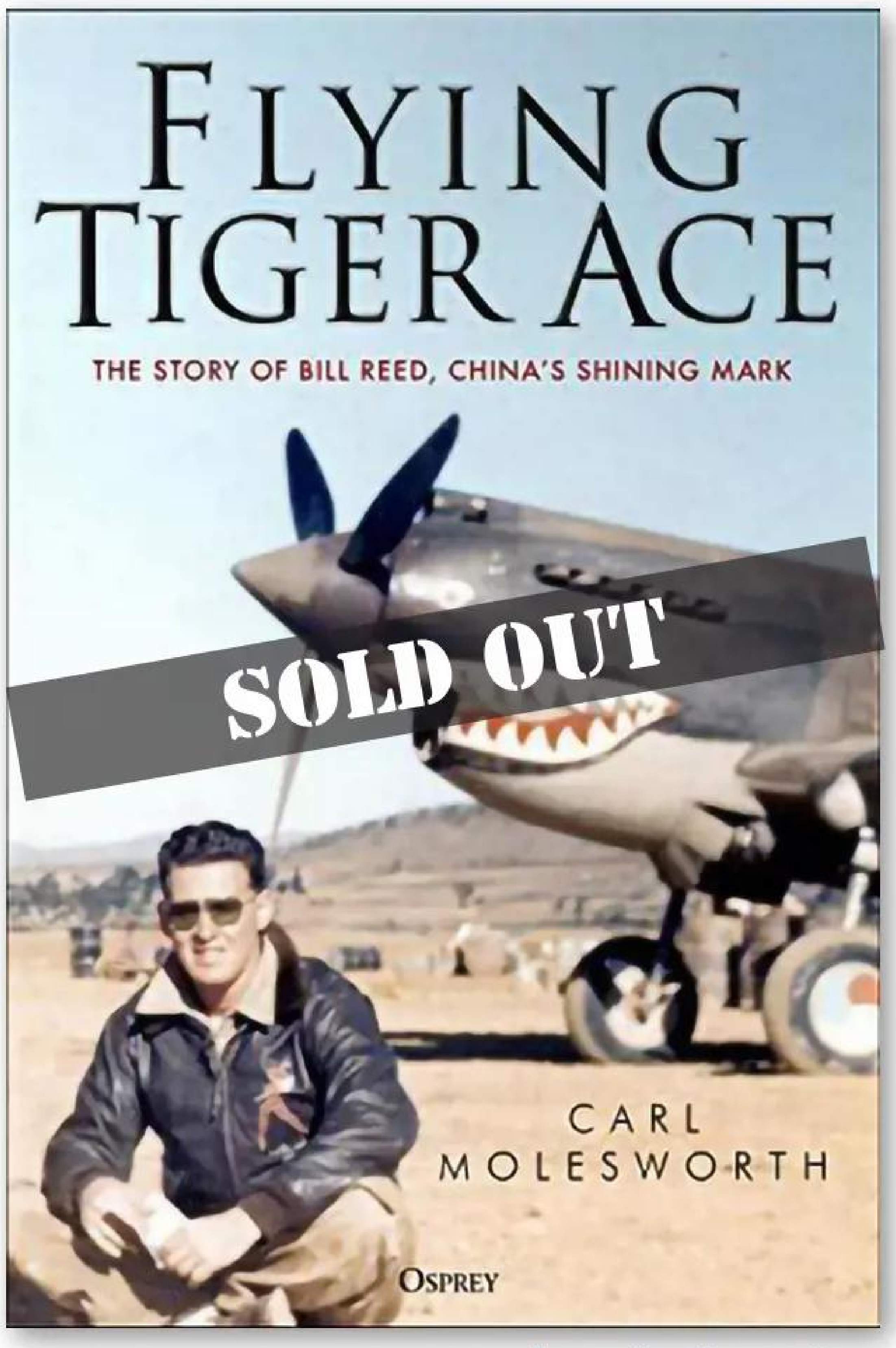
015: THE KASSEL RAID by Eric Ratcliffe. Hardbound, 182 pages. The largest loss by any USAAF Bob Group took place on 27 September 1944. PUB AT $34.95, NOW $27


The Life, War, and Mysterious Disappearance of America's World War II Strafing King
VANISHED HERO
SOLD OUT
JAY A. STOUT

016: VANISHED HERO by Jay A. Stout. Hardbound, 290 pages. The mysterious disappearance of WWII's "strafing king." PUB AT $32.95, NOW $26



017: LIGHTNING STRIKES by Steve Blake. Hardbound, 360 pages. Complete history of Lockheed's famous P-38 Lightning, PUB AT $45, NOW $36



018: FLYING TIGER ACE by Carl Molesworth. Hardbound, 355 pages. Combat story of Flying Tiger ace Bill Reed. PUB AT $35, NOW $27

QUANTITY	TITLE NAME	PRICE EACH	TOTAL DUE
	001 DEAD RECKONING	$21	
	002 LIGHTNING SKY	$19	
	003 NIGHT CATS & CORSAIRS	$38	
	004 WIDOWMAKER	$27	
	005 THE PETLYAKOV PE-2	$32	
	006 ABOVE THE REICH	$21	
	007 KANGAROO SQUADRON - SOLD OUT	$21	
	008 INFERNO - SOLD OUT	$22	
	009 THE CLAY PIGEONS	$26	
	010 GREAT ESCAPE FOR STALAG III	$28	
	011 UNSHACKLED SPIRIT	$22	
	012 OPERATION KE	$32	
	013 FIGHTER GROUP	$17	
	014 SHOT DOWN	$19	
	015 THE KASSEL RAID	$27	
	016 VANISHED HERO - SOLD OUT	$26	
	017 LIGHTNING STRIKES	$36	
	018 FLYING TIGER ACE - SOLD OUT	$27	
	ORDER OVER $100 AND TAKE OFF AN ADDITIONAL 10%!		

(Domestic Postage is included in the purchase price. Canadian and foreign orders please call 1-818-700-6868 or email *ed@challengeweb.com* for additional postage cost by title.)

DEDUCT DISCOUNT	
MERCHANDISE TOTAL	
CA Residents add 9% Sales Tax	
TOTAL DUE (U.S. Funds Only)	

CALL 818-700-6868 FOR IMMEDIATE SERVICE!

Name ______________________________

Address ______________________________

City ______________________ State__________ Zip + 4 __________

Telephone Number (in the event we need to contact you): ______________________

E-mail address: ______________________________

EXTRA DISCOUNT!

BUY OVER $100 AND TAKE OFF AN ***ADDITIONAL 10%***

Challenge AVIATION BOOK CLUB

Payment Enclosed (Orders must be prepaid in U.S. funds)

○Check ○Money Order ○Credit Card

Card # ______________________

CVV # ______________________

Expiration Date ______________________

Signature______________________

SEND TO:

CHALLENGE ABC
9800-D Topanga Canyon Blvd.
#368
Chatsworth, CA 91311

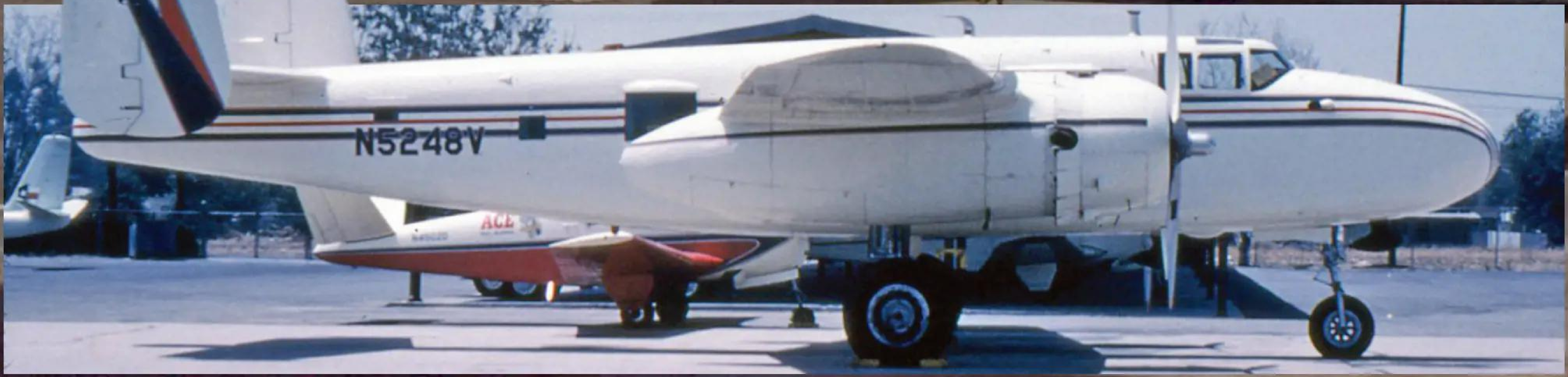
OR, ORDER AT:

1-818-700-6868

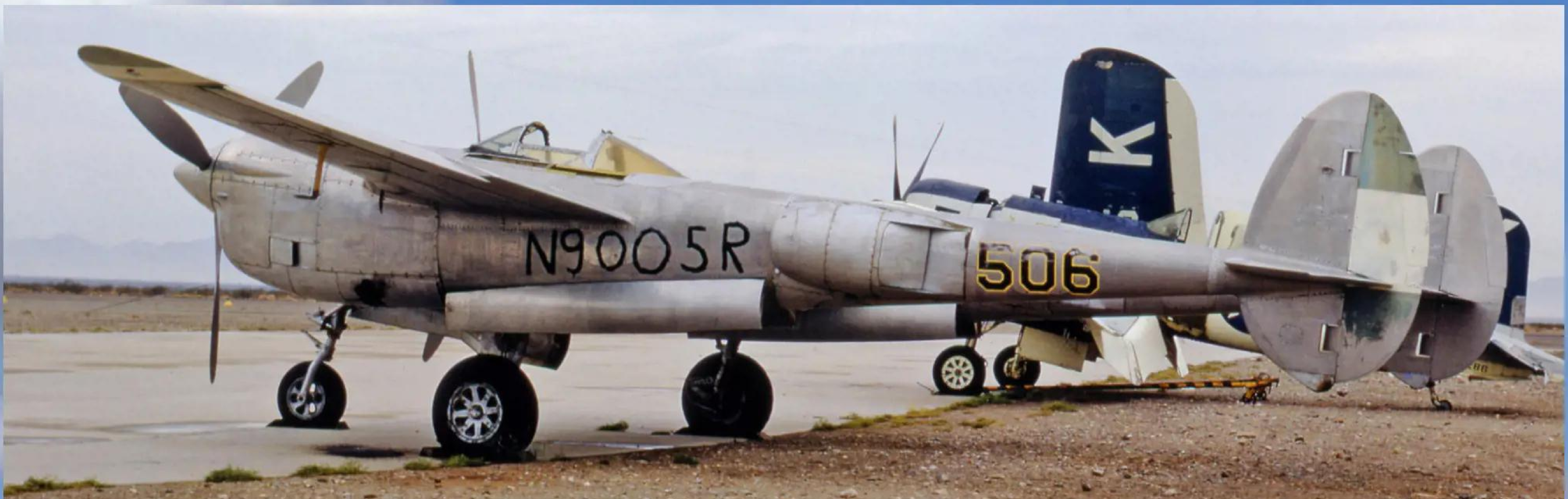
FRIDAY NIGHT OLDIES

BY DOUG FISHER

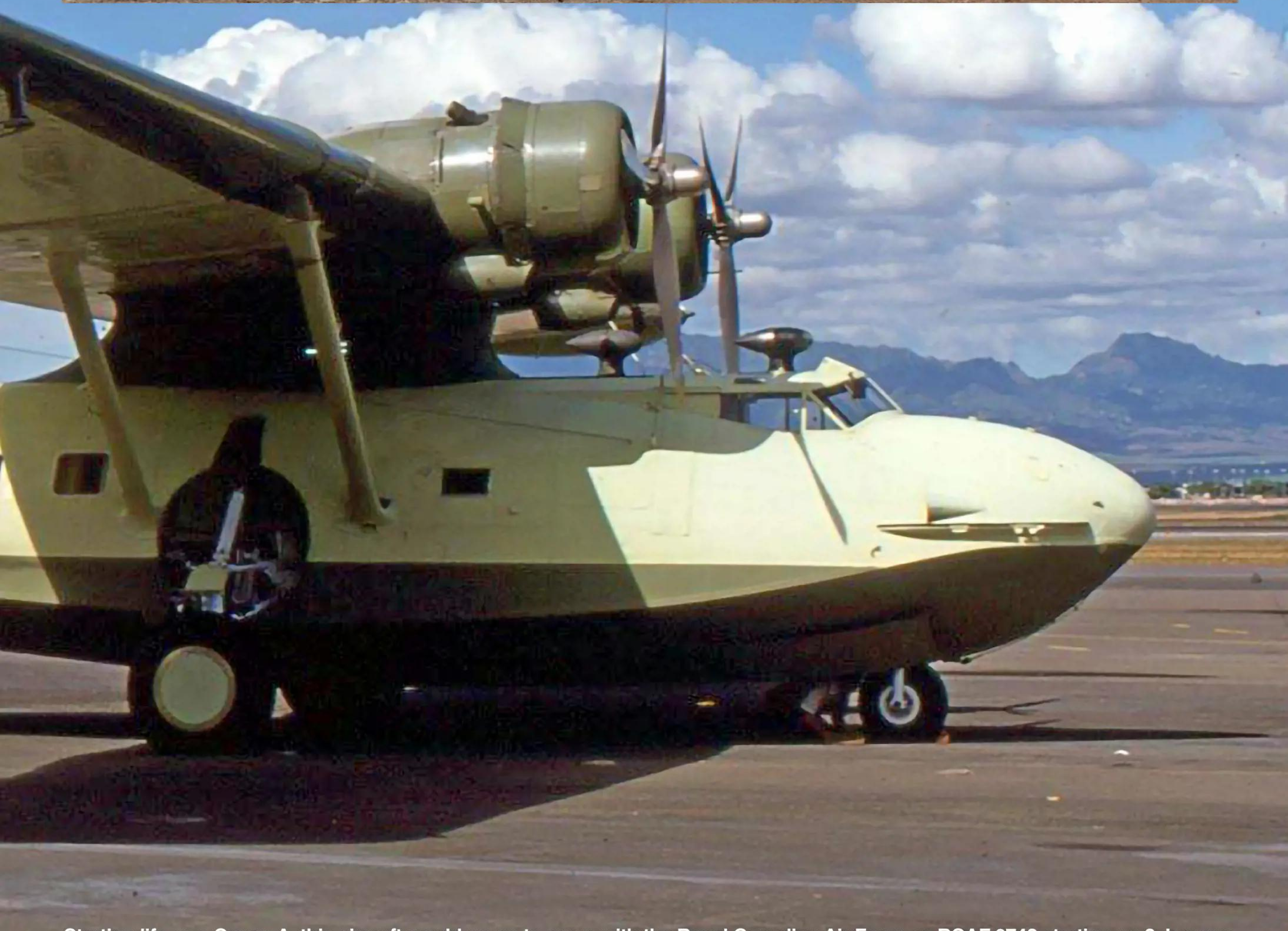
SURPLUS EX-MILITARY AIRCRAFT LONG BEFORE THEY BECAME MULTI-MILLION DOLLAR RESTORATIONS



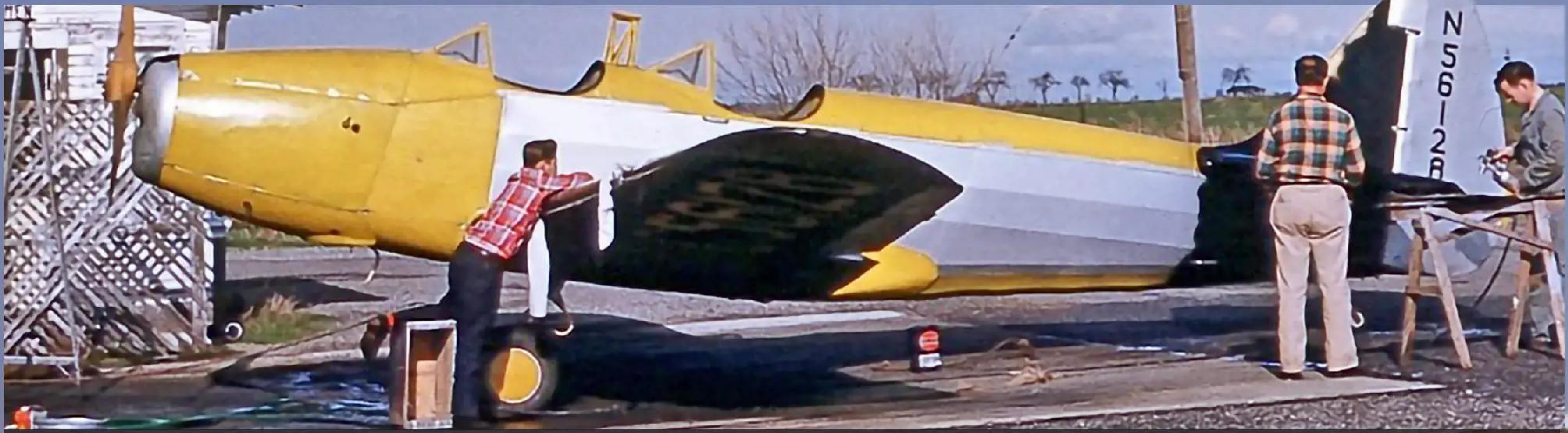
North American TB-25N Mitchell USAAF 44-29808/N5248V had a relatively short civilian life. Surplused from the USAF in 1958, the Mitchell underwent an executive conversion as can be seen by the addition of extra windows and mounts for JATO bottles. However, by the early 1960s it was parked at Los Angeles International Airport and its condition went downhill. The Mitchell was acquired on 28 February 1962 by the nearby LA Trade Tech located on Sepulveda Boulevard. The B-25 was towed to that location, parked next to a B-23 Dragon, and used as a training aid for students. It was deregistered on 20 May 1965 and eventually scrapped in place during 1976.



During the 1960s/1970s, a visitor to the bleak Blythe Airport in southern California would have come across a number of Warbird-type aircraft that seemed to have been abandoned. They actually belonged to aircraft broker Bob Bean who was just waiting for someone to come along with the right amount of money. Included in the line-up, was Lockheed P-38L Lightning USAAF 44-53095/N9005R that Bean had obtained from the air force of Honduras in exchange for overhauled Vought Corsairs. In the background is one of the Corsairs that Bean hoped would be part of a further exchange with that government but that transaction did not happen. The Lightning was obtained and restored by Bill Ross and then went through various owners as N138TB and N38TF. Currently, it is with the Charles Somers collection at Sacramento, California.

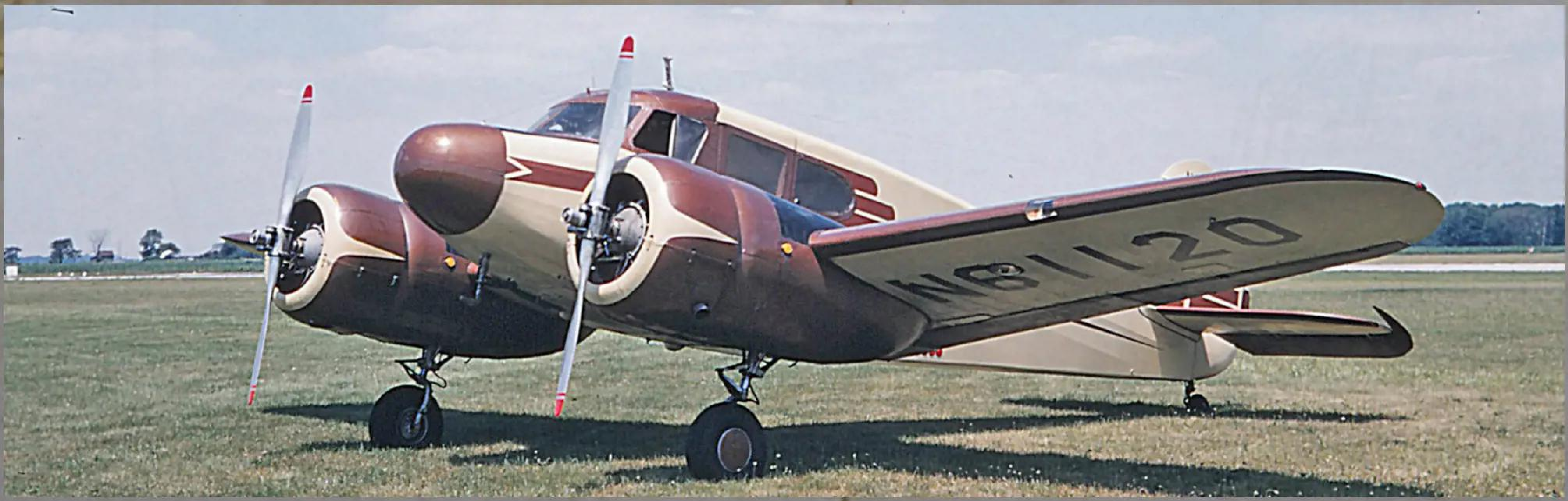


Starting life as a Canso A, this aircraft would go on to serve with the Royal Canadian Air Force as RCAF 9742 starting on 2 January 1942. With the end of the war, the plane had relatively few flying hours and it was one of numerous Catalina/Canso amphibians purchased by the Southern California Aircraft Corporation operating out of Ontario, California. This company had come up with the Landseaire conversion that would turn the PBY into a flying yacht. Registered N68740, the aircraft would be painted in a not particularly attractive two-tone green scheme and would spend a lot of time based at Oakland Airport in northern California. The Landseaire conversions could be fitted with two small boats under the wings and these could be lowered and raised via winches. N68740 was a well-traveled Cat and it spent time flying the Pacific to Hawaii and Indonesia. One of the features of the Landseaire was that it had a large free-blown bubble on the right side of the fuselage/hull. After going through several owners, the Cat wound up at Lone Star Flight Museum in Galveston, Texas, where it received a military style scheme and a nose turret. Today, it is on display at the Pima Air and Space Museum.

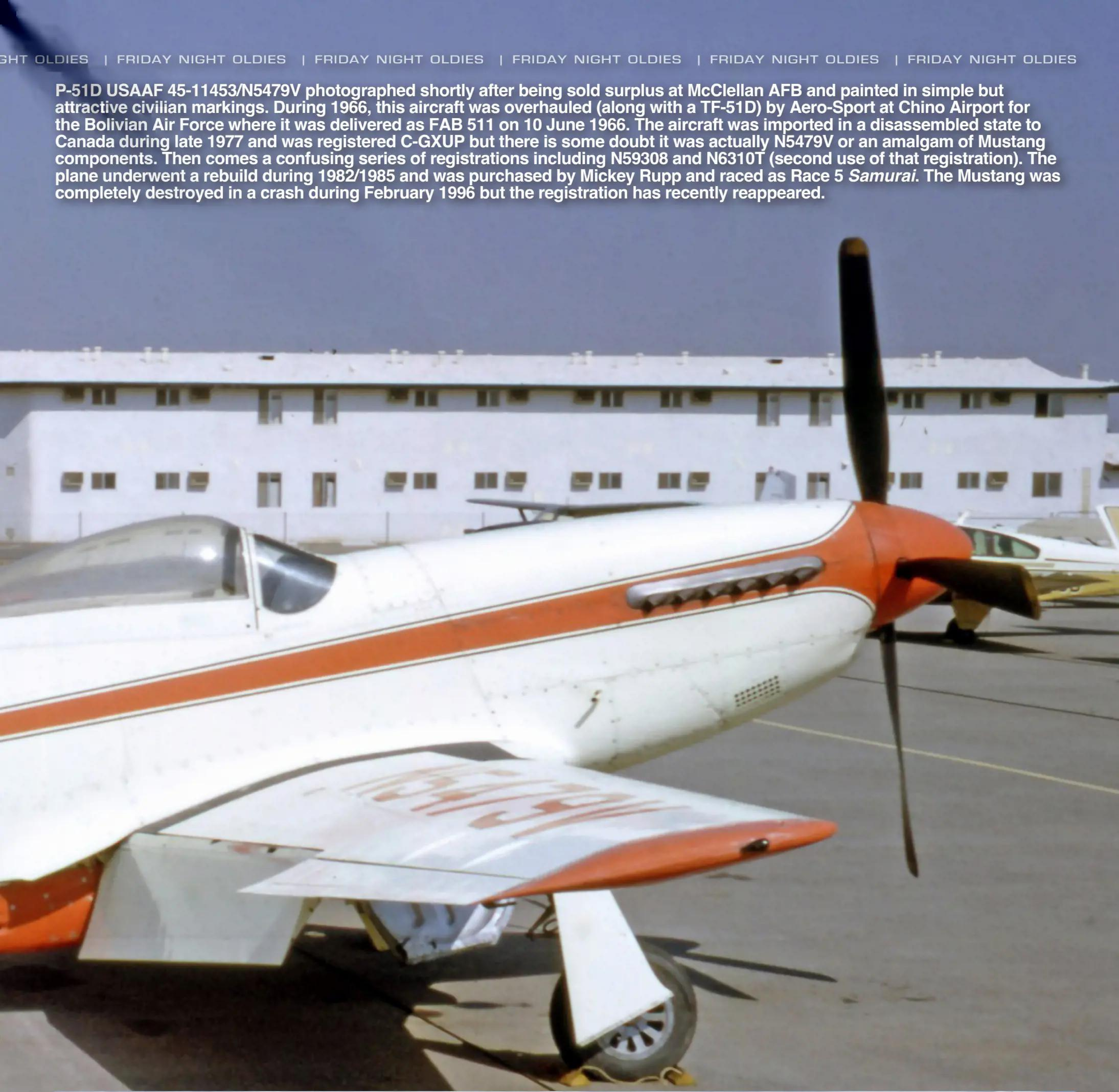


Thousands of Fairchild PT-19/PT-23/PT-26 primary trainers were sold surplus following the end of WWII. This evocative photograph shows PT-19 N56128 receiving some new fabric and a coat of aluminum dope out in the open. Built of steel tube, wood, and fabric, the Fairchilds offered post-war pilots a low-cost way of flying. However, the very nature of their construction combined with the fact most of these planes were not hangared led to their numbers quickly going dwindling as they fell victim to the elements.

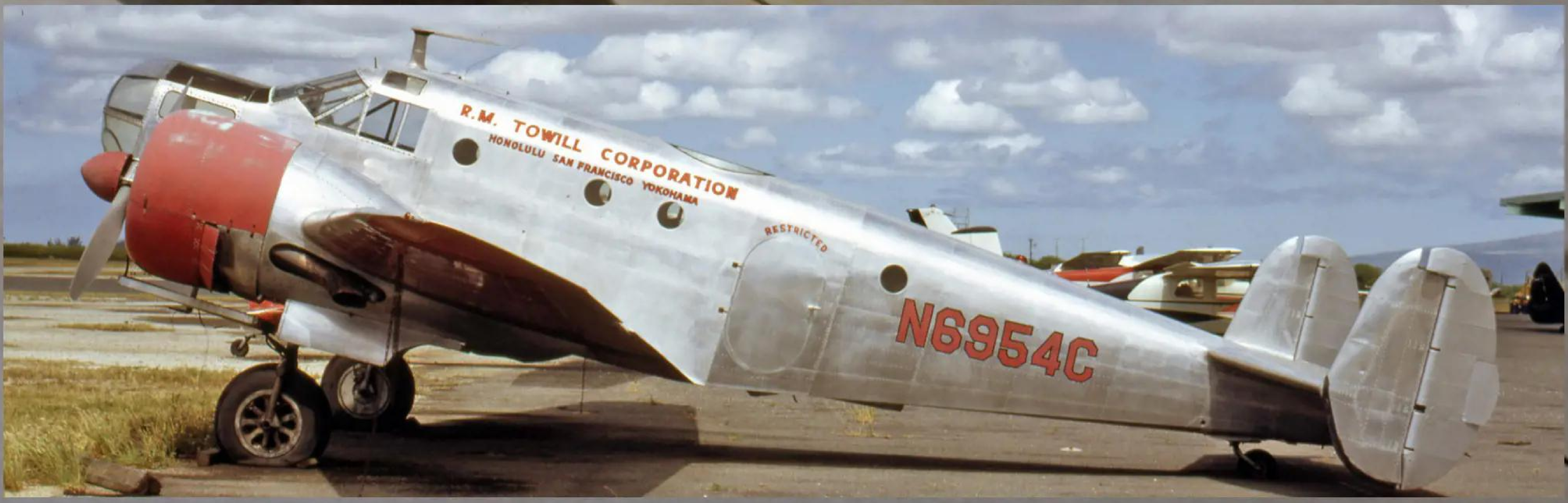
N5479V
N8407Z
N7884Z



As with the Fairchild primary trainers, the Cessna T-50/UC-78 series was also constructed of steel tube, wood, and fabric. The large one-piece wood wing was particularly prone to weather damage when left outside and many of these Cessnas were simply abandoned once the airframe became due for recovering or the engines for overhaul. Registered N61120, this nicely-painted example has adjustable pitch propellers — a big improvement over the original fixed-pitch wood units. The registration for this aircraft was cancelled in 1965, probably meaning that it had simply rotted away.



P-51D USAAF 45-11453/N5479V photographed shortly after being sold surplus at McClellan AFB and painted in simple but attractive civilian markings. During 1966, this aircraft was overhauled (along with a TF-51D) by Aero-Sport at Chino Airport for the Bolivian Air Force where it was delivered as FAB 511 on 10 June 1966. The aircraft was imported in a disassembled state to Canada during late 1977 and was registered C-GXUP but there is some doubt it was actually N5479V or an amalgam of Mustang components. Then comes a confusing series of registrations including N59308 and N6310T (second use of that registration). The plane underwent a rebuild during 1982/1985 and was purchased by Mickey Rupp and raced as Race 5 *Samurai*. The Mustang was completely destroyed in a crash during February 1996 but the registration has recently reappeared.

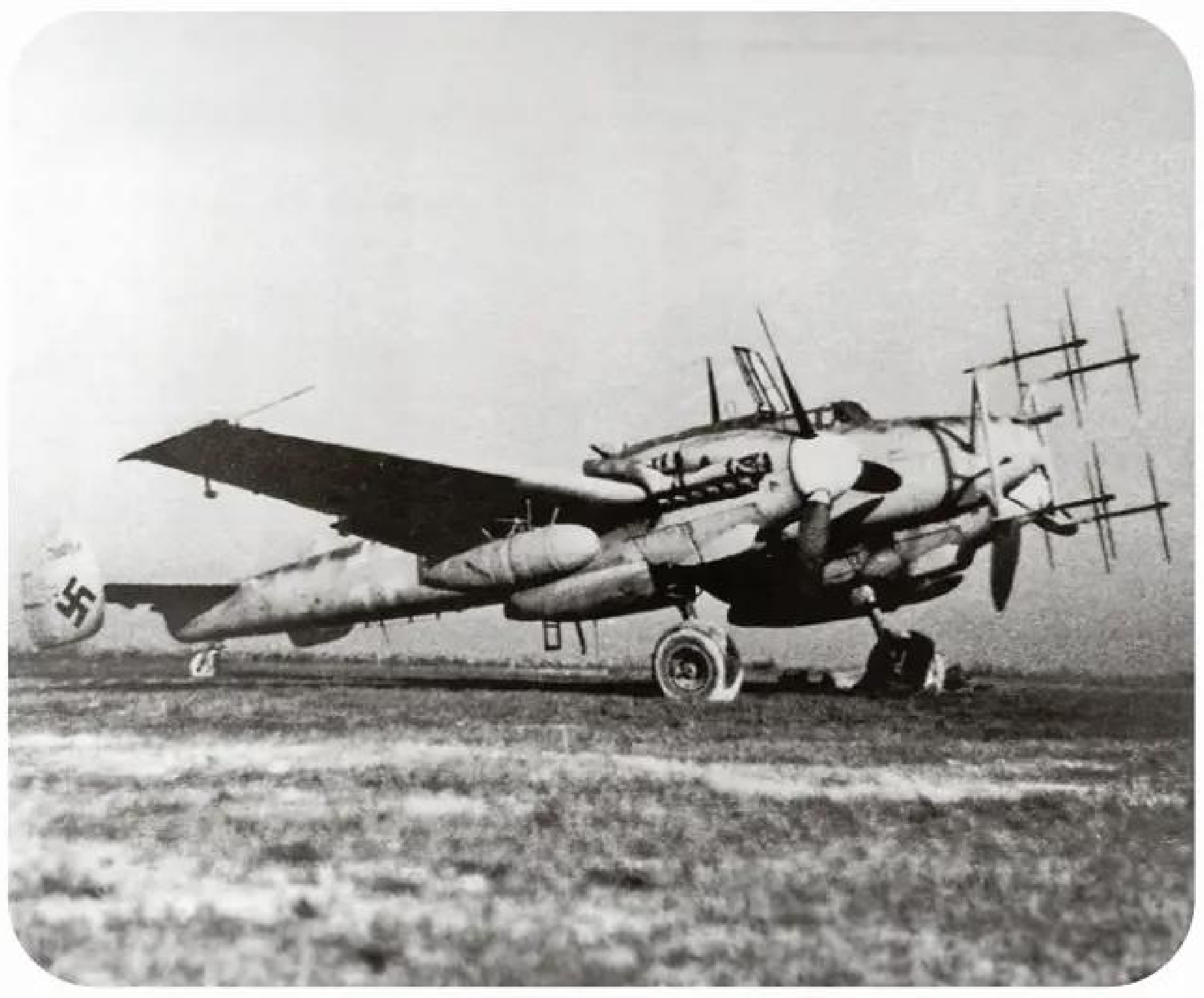


Beech AT-11 USAAF 42-37251/N6954C was utilized as a mapping platform in Hawaii, operating mainly from Honolulu International Airport. The AT-11 was an ideal aircraft for such tasks since it was usually fitted with several photo ports while also retaining the plexiglass nose used when it was a wartime bombardier trainer. However, the climate in Hawaii is not friendly to aluminum and by the early 1960s the aircraft was suffering from corrosion. Pulled from duty, it was stripped of its engines and parked in the weeds. By 1971, the registration had been cancelled and the Kansan scrapped.

AC

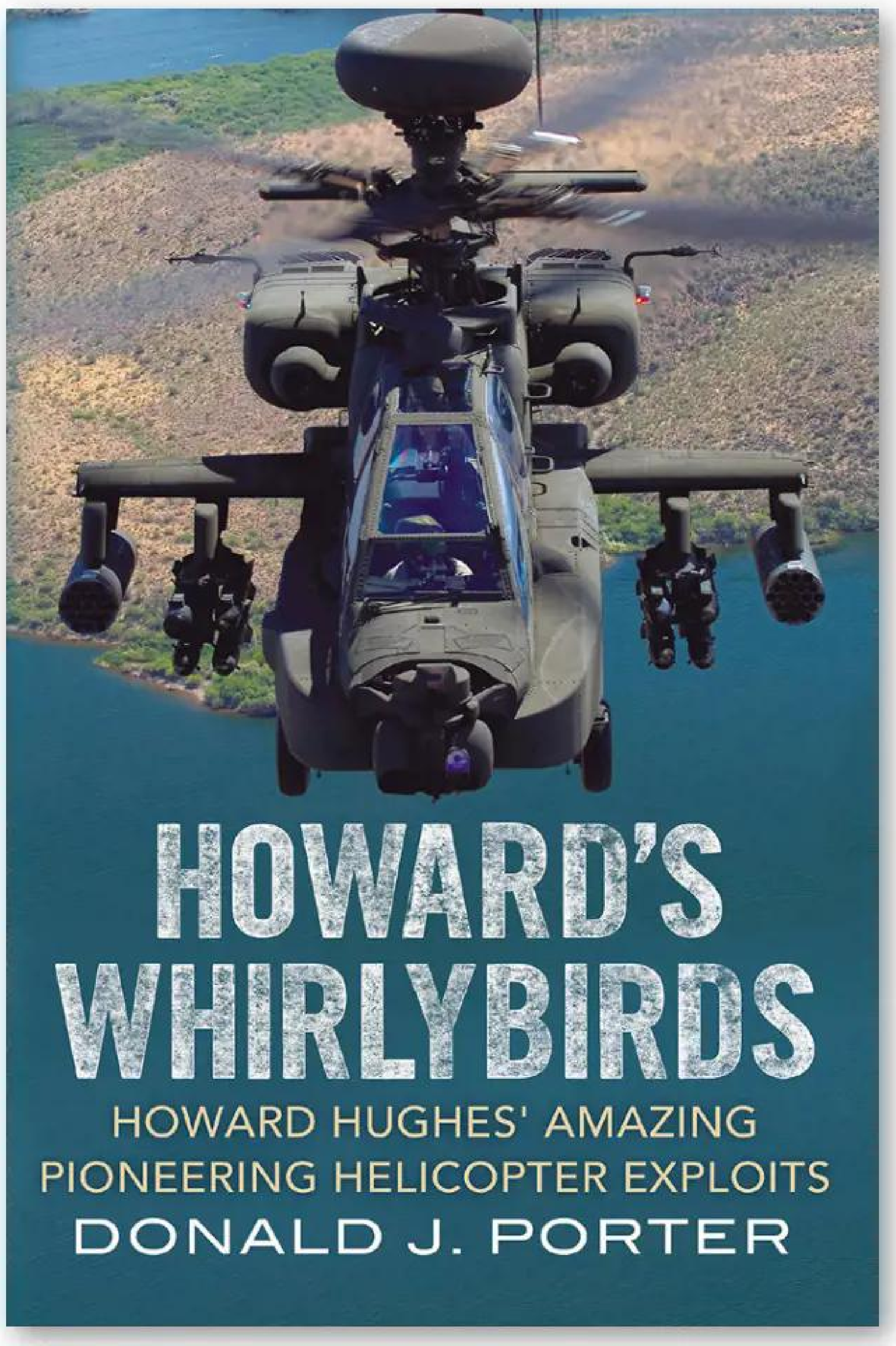
MORE NEW TITLES FROM THE AVIATION BOOK CLUB!

The Aviation Book Club (ABC) is pleased to present an extensive selection of books that will fit into any discerning aviation library. All books are carefully chosen by our staff and our contributors. Also, we are also offering great discounts for this Christmas Season!

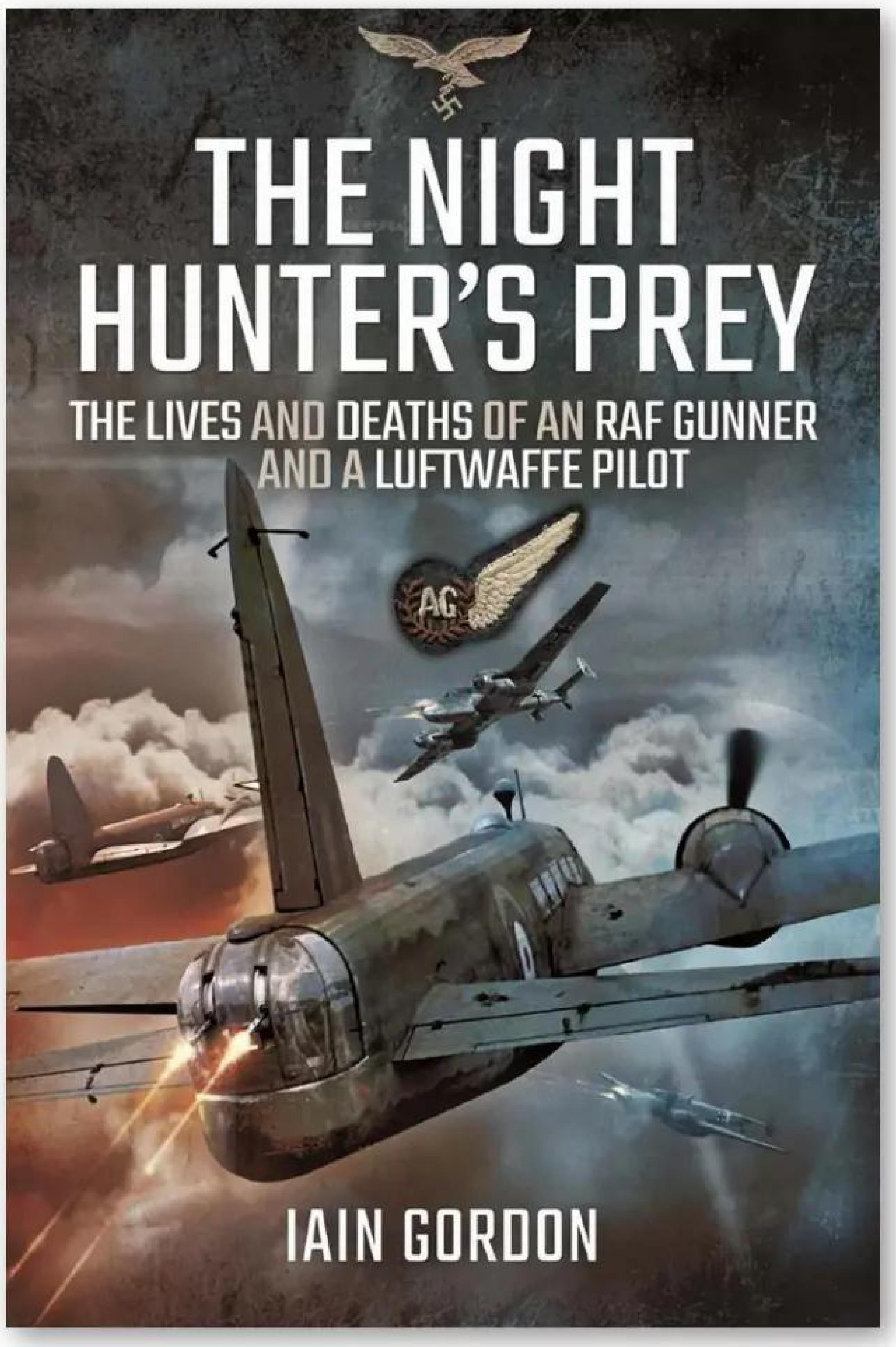


EXTRA DISCOUNT!

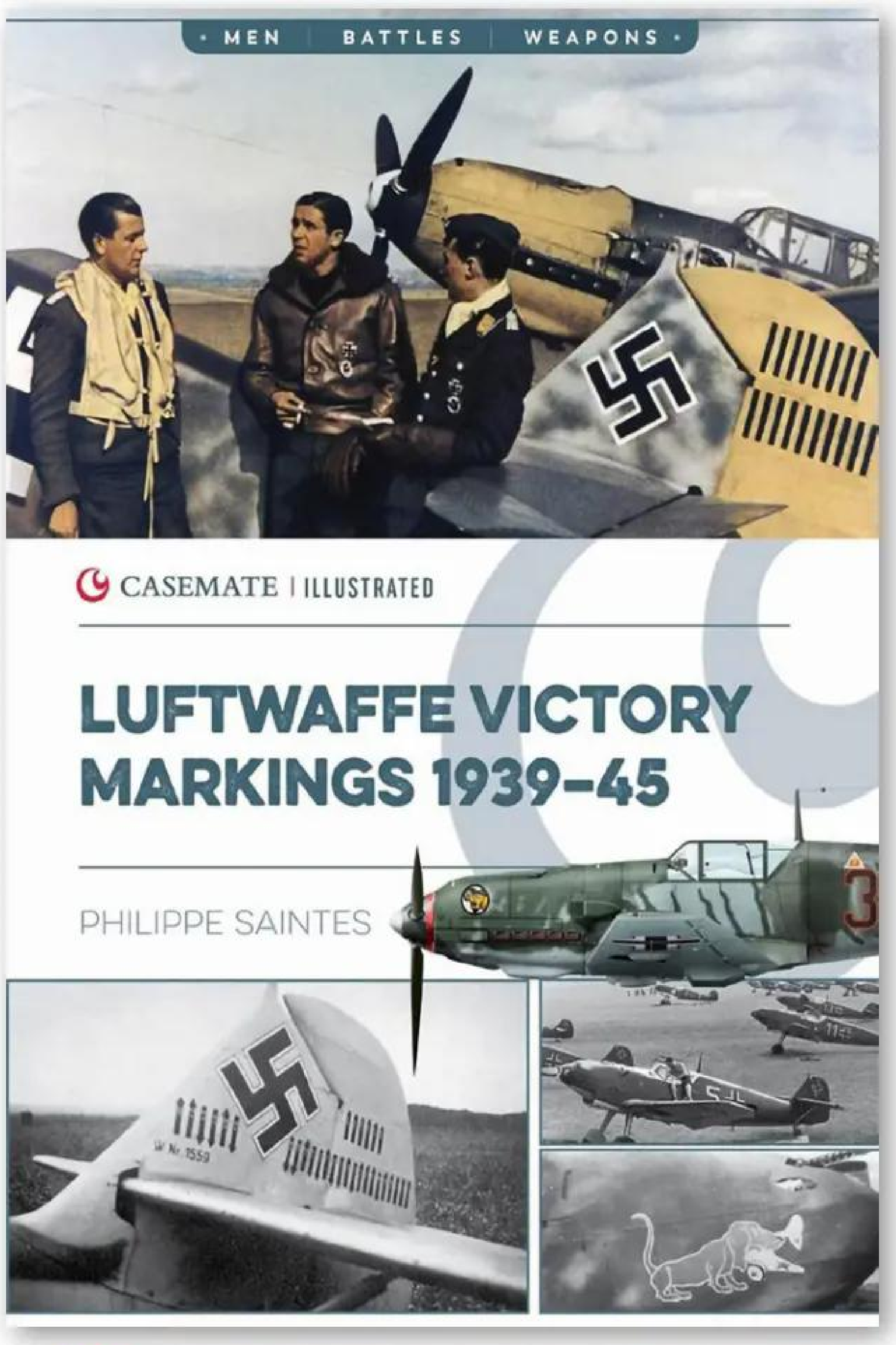
BUY OVER $100 AND TAKE OFF AN ***ADDITIONAL 10%***


HOWARD'S WHIRLYBIRDS
HOWARD HUGHES' AMAZING PIONEERING HELICOPTER EXPLOITS
DONALD J. PORTER

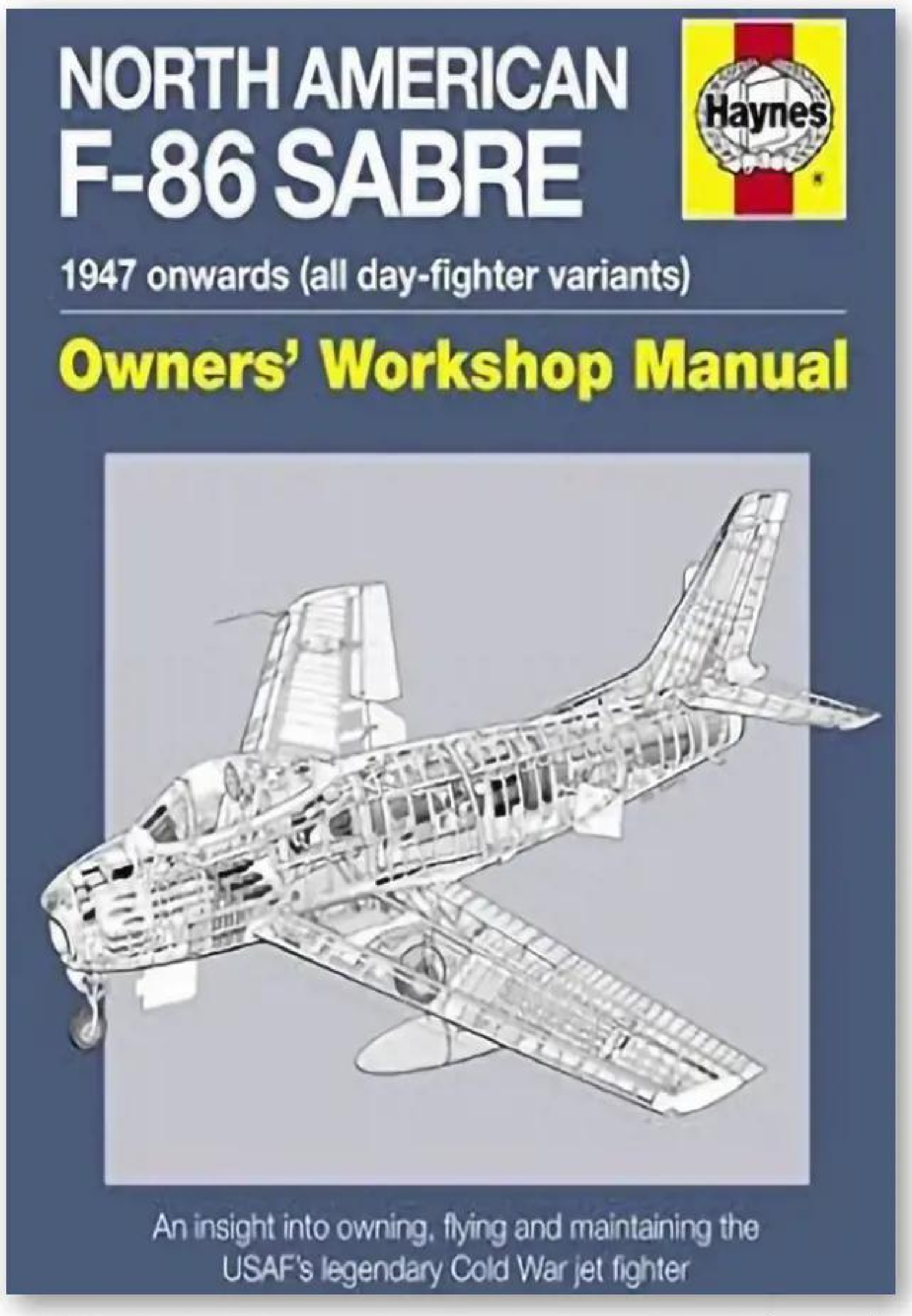
019: HOWARD'S WHIRLYBIRDS by Donald J. Porter. Howard Hughes' amazing pioneering helicopter exploits. Hardbound, 224 pages. Heavily illustrated with Hughes' incredible designs. PUB AT $29.95, NOW $22


THE NIGHT HUNTER'S PREY
THE LIVES AND DEATHS OF AN RAF GUNNER AND A LUFTWAFFE PILOT
AG
IAIN GORDON

020: THE NIGHT HUNTER'S PREY by Iain Gordon. The lives and deaths of an 'RAF gunner and a *Luftwaffe* pilot. Hardbound, 272 pages, illustrated. PUB AT $39.95, NOW $22


MEN · BATTLES · WEAPONS
CASEMATE | ILLUSTRATED
LUFTWAFFE VICTORY MARKINGS 1939–45
PHILIPPE SAINTES

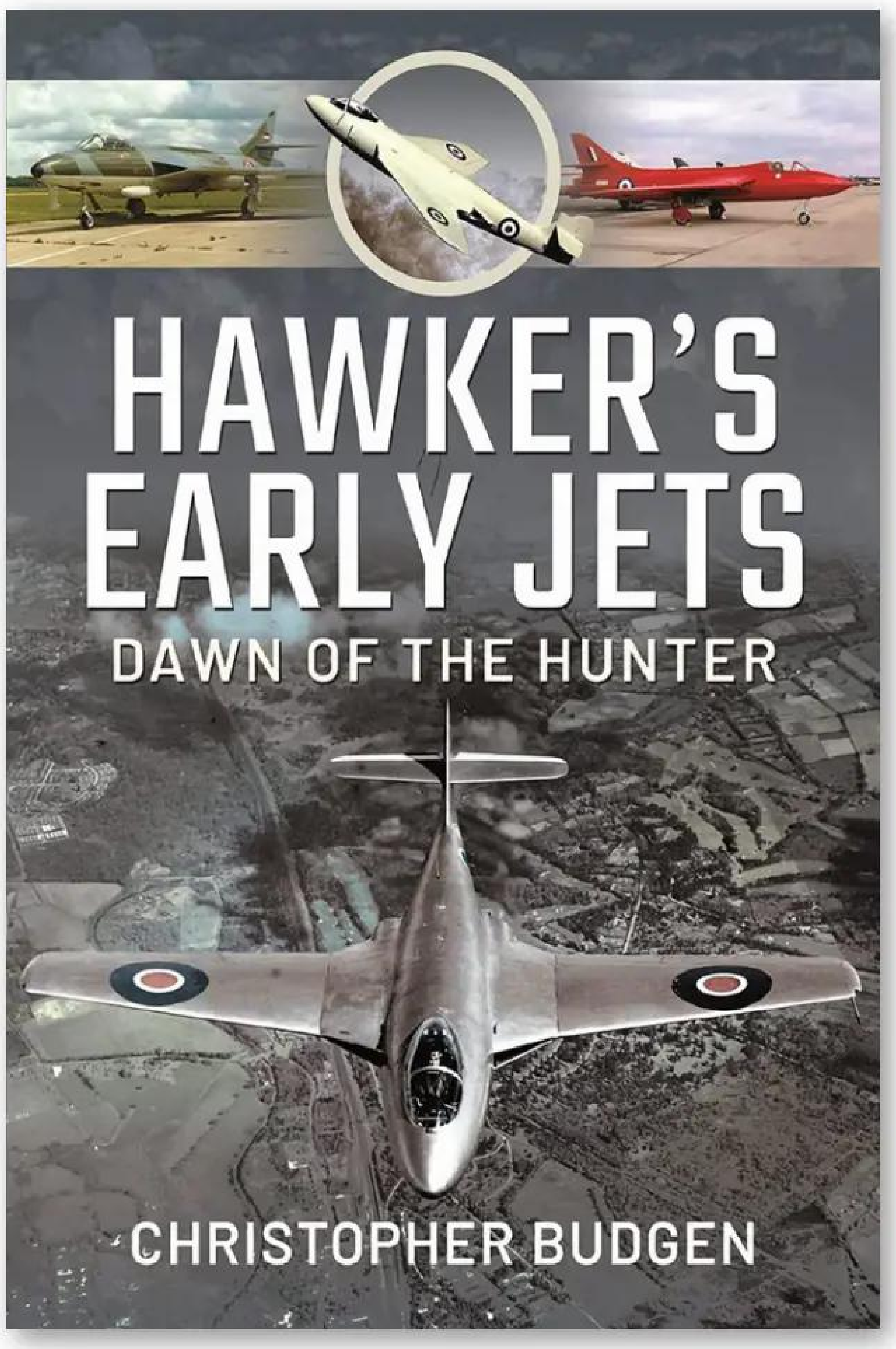
021: LUFTWAFFE VICTORY MARKINGS by Phillippe Saintes. Essential WWII reference guide to German aircraft victory tallies on aircraft. Hardbound, 192 pages, heavily-illustrated. PUB AT $39.95, NOW $25


NORTH AMERICAN F-86 SABRE
Haynes
1947 onwards (all day-fighter variants)
Owners' Workshop Manual
An insight into owning, flying and maintaining the USAF's legendary Cold War jet fighter

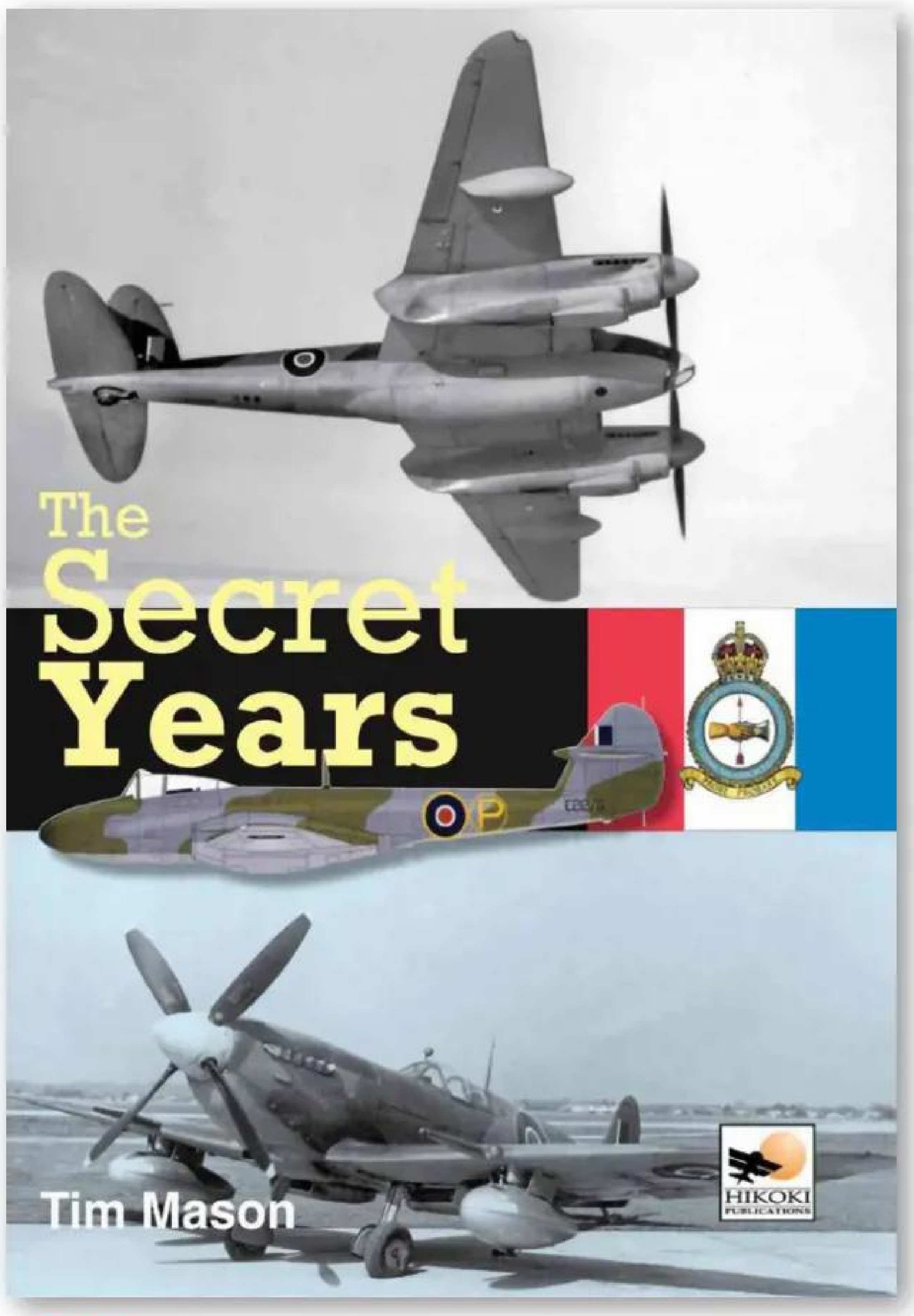
022: NORTH AMERICAN F-86 SABRE by Mark Linney. Part of the popular Owner's Worskhop Manual series, this heavily-illustrated 160-page hardbound book is an in-depth look at NAA's most famous jet fighter. PUB AT $28, NOW $20

Knights
OF THE BATTLE of BRITAIN
LUFTWAFFE AIRCREW AWARDED THE KNIGHTS CROSS IN THE SUMMER OF 1940
CHRIS GOSS

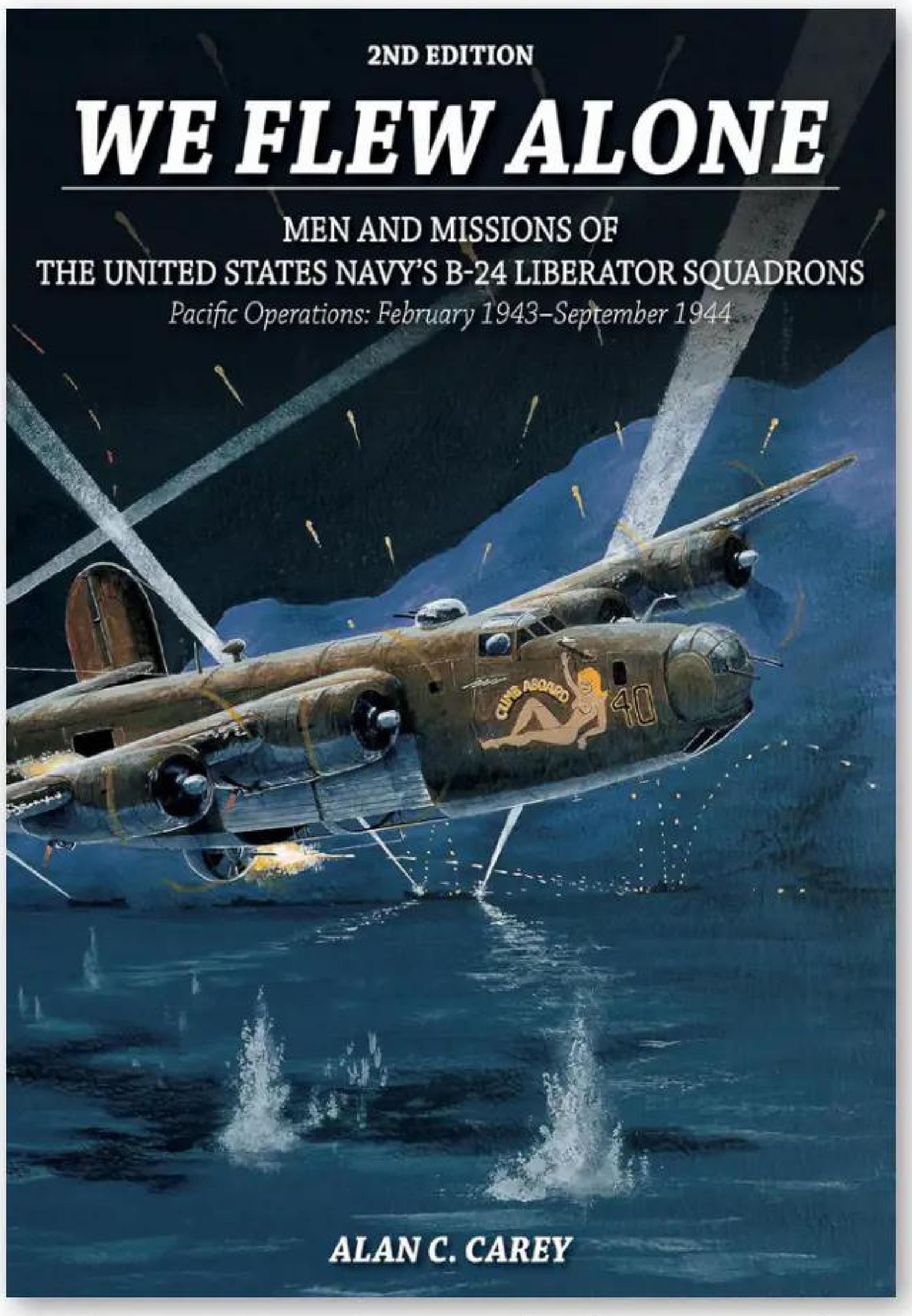
023: KNIGHTS OF THE BATTLE OF BRITAIN by Chris Goss. Hardbound, 240-page in-depth look at the *Luftwaffe* aircrew awarded the Knight's Cross during the summer of 1940. PUB AT $34.96, NOW $25


HAWKER'S EARLY JETS
DAWN OF THE HUNTER
CHRISTOPHER BUDGEN

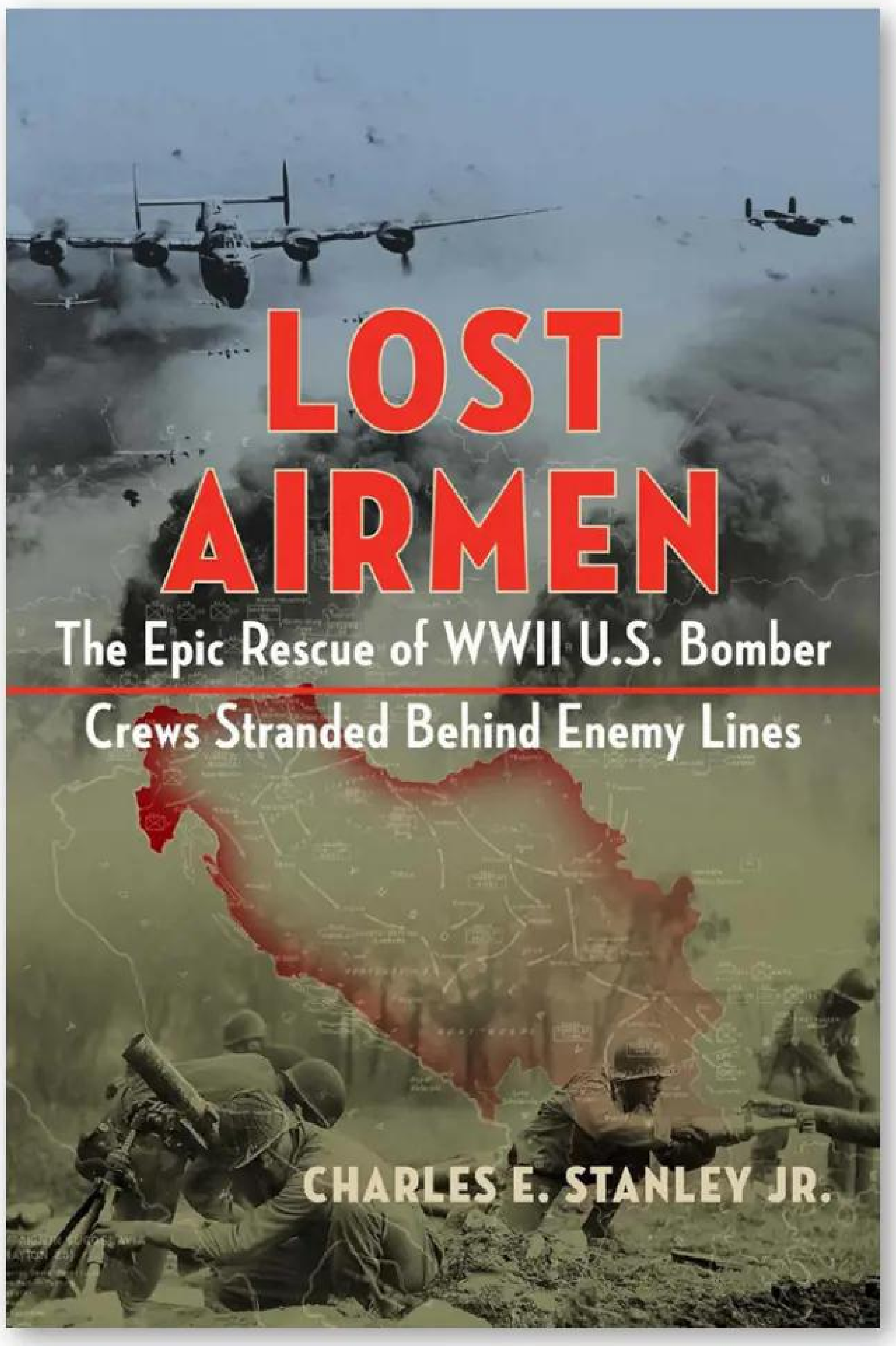
024: HAWKER'S EARLY JETS by Christopher Budgen. Hardbound 312 page heavily-illustrated volume looks into the many Hawker jet designs that would lead to the world-famous Hunter. PUB AT $49.95, NOW $35


The Secret Years
Tim Mason
HIKOKI

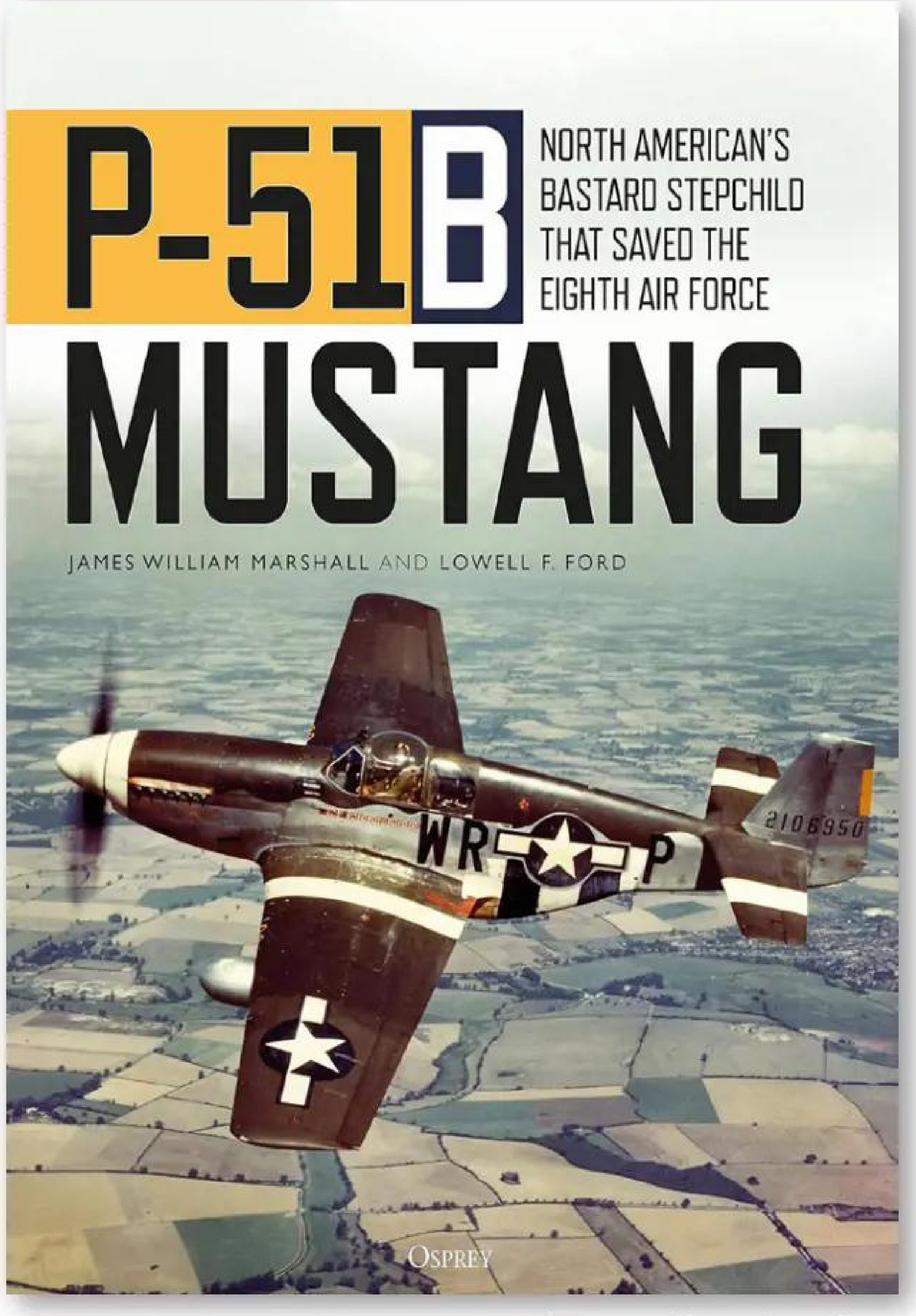
025: THE SECRET YEARS by Tim Mason. Flight testing at the RAF base of Boscombe Down from 1939 to 1945. Over 500 photos, hardbound, 368 pages. Inside look at all the combat aircraft test programs conducted at the base during WWII. PUB AT $56.95, NOW $40


2ND EDITION
WE FLEW ALONE
MEN AND MISSIONS OF THE UNITED STATES NAVY'S B-24 LIBERATOR SQUADRONS
Pacific Operations: February 1943–September 1944
ALAN C. CAREY

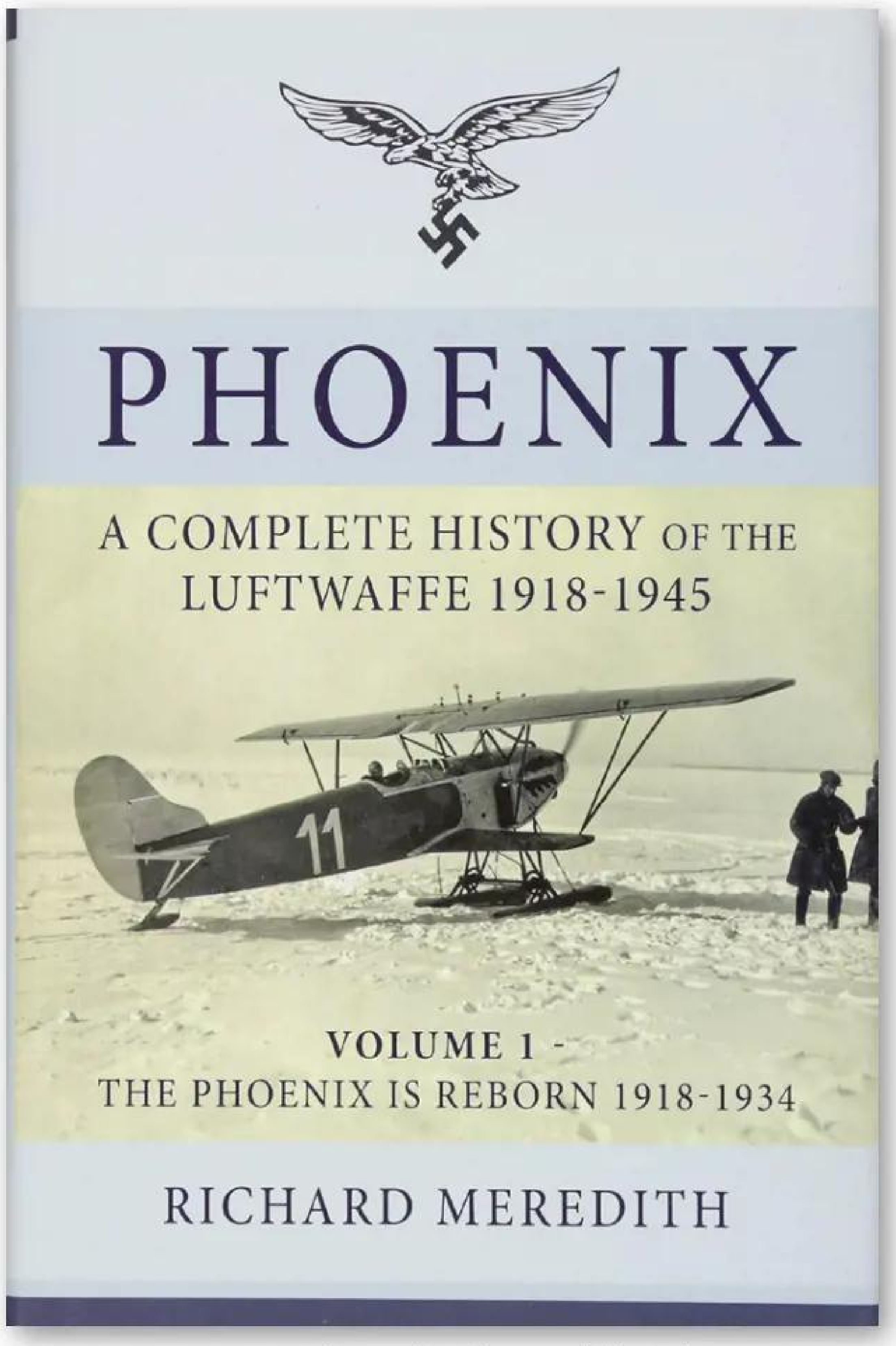
026: WE FLEW ALONE by Alan C. Carey. The full account of the men and missions of the United States Navy's Consolidated B-24 Liberator Squadrons in the Pacific from February 1943 to September 1944. Softbound, 152 pages. PUB AT $29.95, NOW $20


LOST AIRMEN
The Epic Rescue of WWII U.S. Bomber Crews Stranded Behind Enemy Lines
CHARLES E. STANLEY JR.

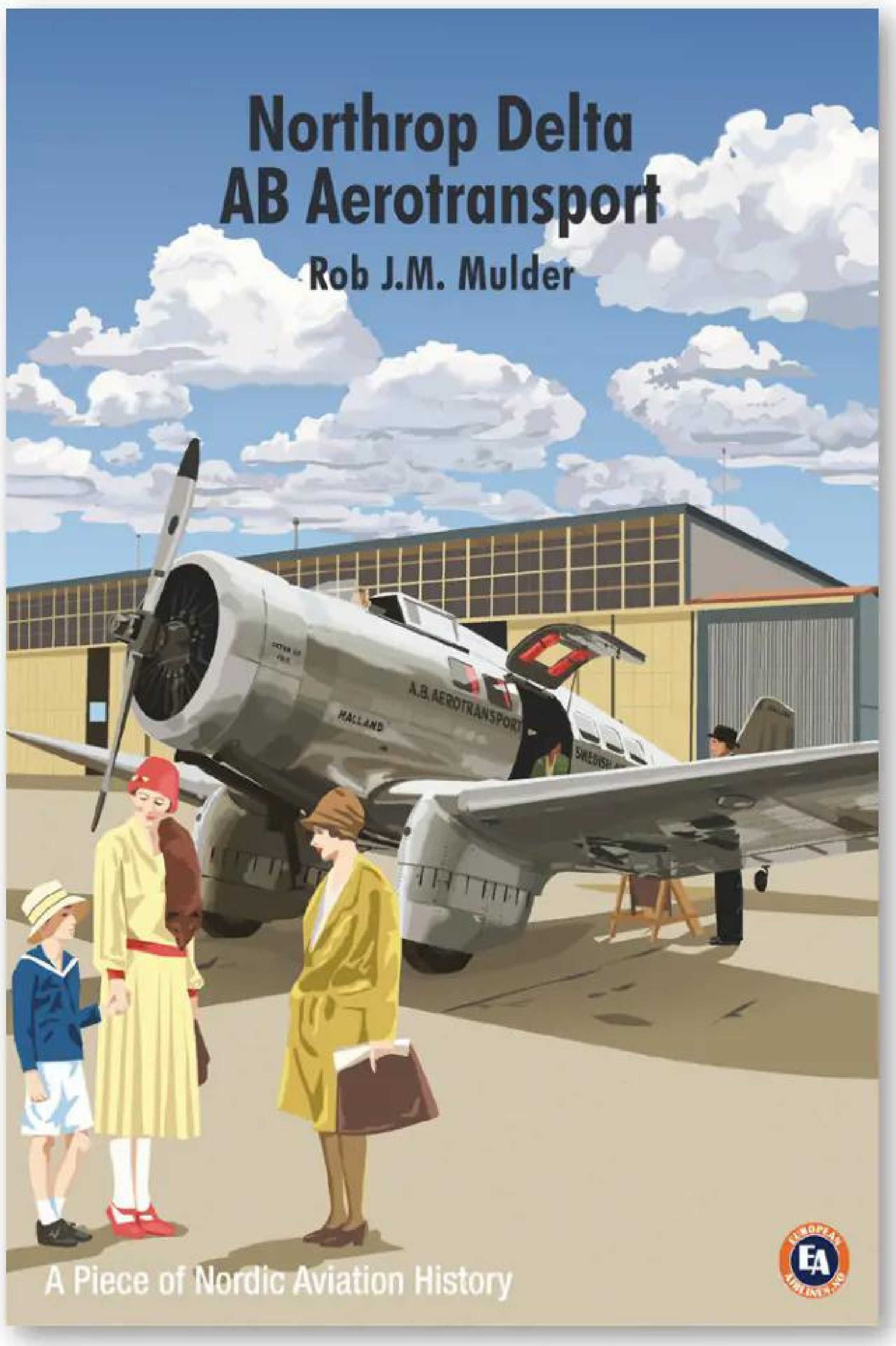
027: LOST AIRMEN by Charles E. Stanley Jr. The epic rescue of 13 WWII US B-24 Liberator crews stranded behind enemy lines. Hardbound, 384 pages, illustrated. PUB AT $29.99, NOW $22


P-51B
NORTH AMERICAN'S BASTARD STEPCHILD THAT SAVED THE EIGHTH AIR FORCE
MUSTANG
JAMES WILLIAM MARSHALL AND LOWELL F. FORD
WR P
OSPREY

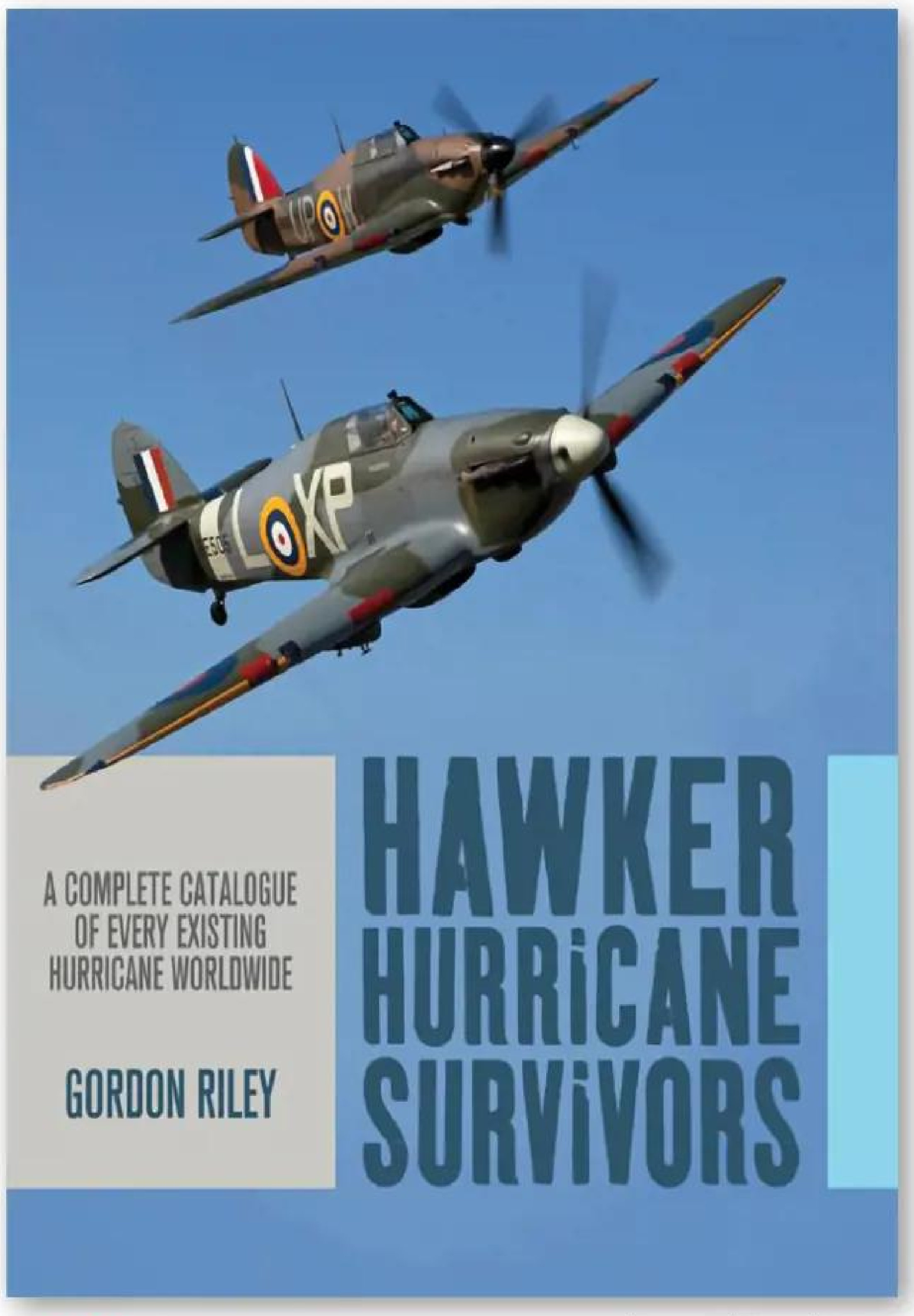
028: P-51B MUSTANG by Lowell Ford and Bill Marshall. The detailed history of how the P-51B Mustang came about and how it was mated to the Rolls-Royce Merlin engine. Hardbound, 352 pages, heavily illustrated. PUB AT $49.50, NOW $38


PHOENIX
A COMPLETE HISTORY OF THE LUFTWAFFE 1918-1945
VOLUME 1 - THE PHOENIX IS REBORN 1918-1934
RICHARD MEREDITH

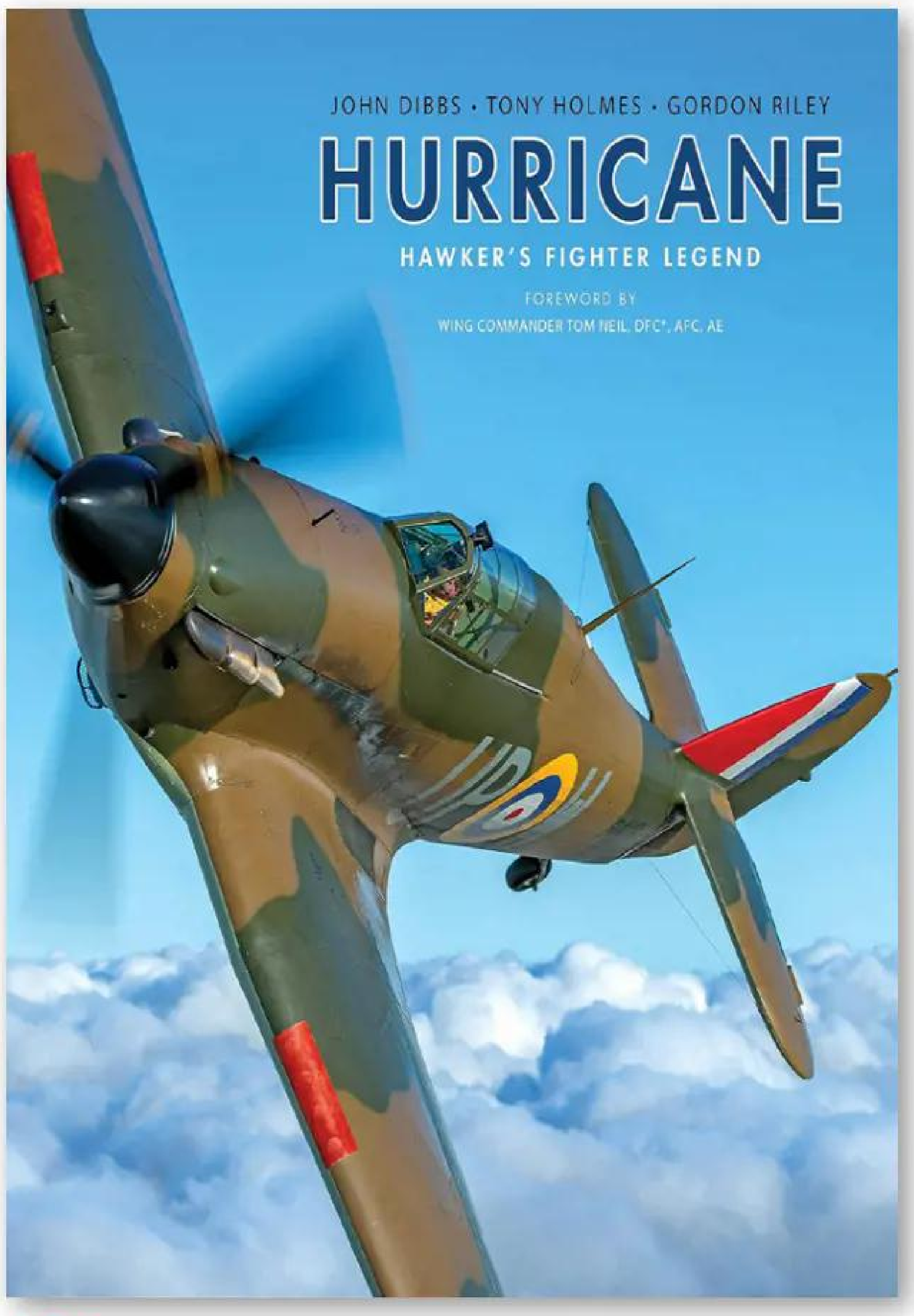
029: PHOENIX by Richard Meredith. Volume One in the complete history of the *Luftwaffe* from 1918-1945. This essential volume covers 1918-1934. Hardbound, 712 pages, heavily illustrated. PUB AT $79.95, NOW $40


Northrop Delta AB Aerotransport
Rob J.M. Mulder
A Piece of Nordic Aviation History

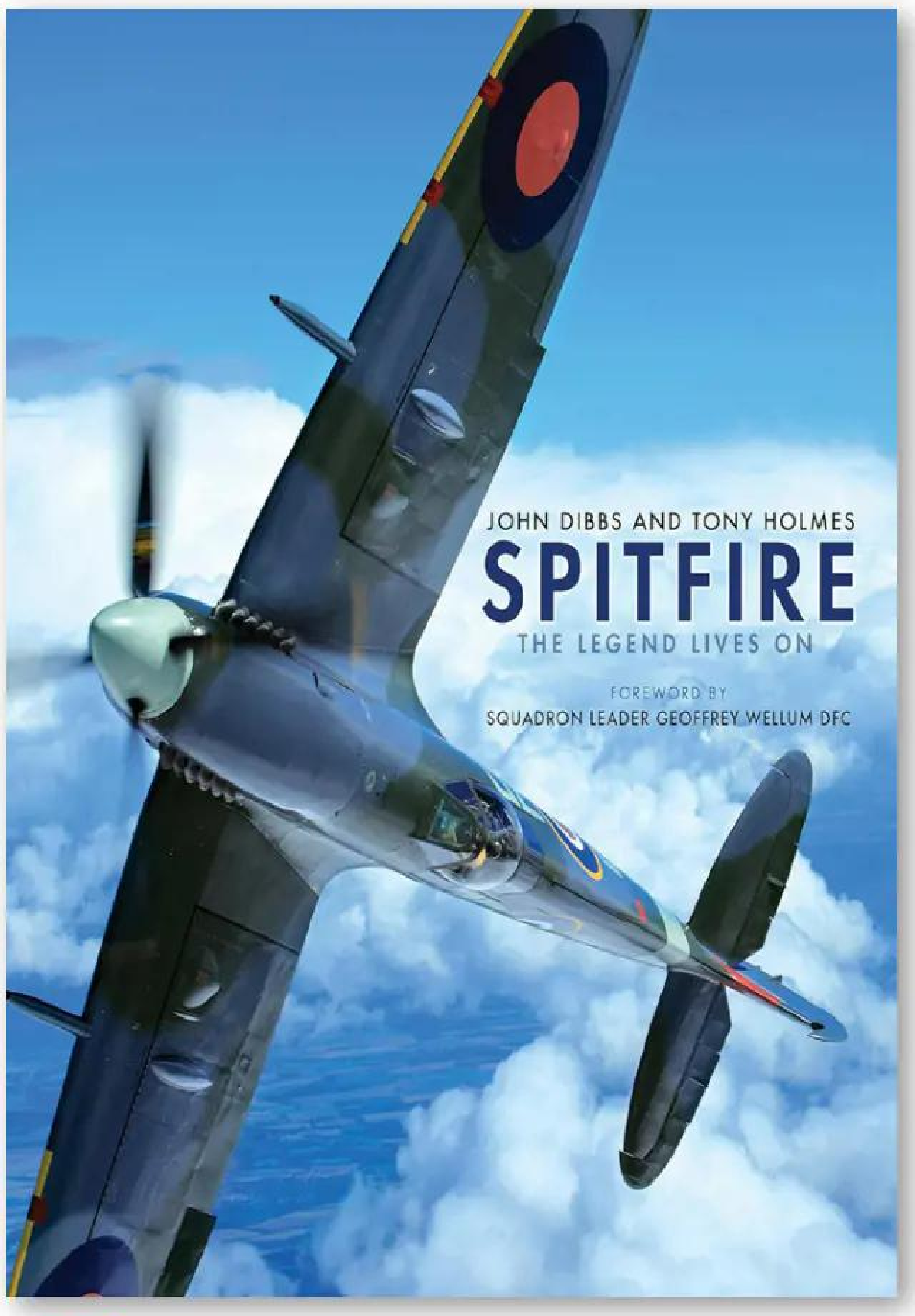
030: NORTHROP DELTA AB AEROTRANSPORT by Rob J.M. Mulder. Out of print very detailed book on the sleek Northrop Deltas flown in Sweden. Hardbound, heavily illustrated. PUB AT $29.95, NOW $22


A COMPLETE CATALOGUE OF EVERY EXISTING HURRICANE WORLDWIDE
GORDON RILEY
HAWKER HURRICANE SURVIVORS

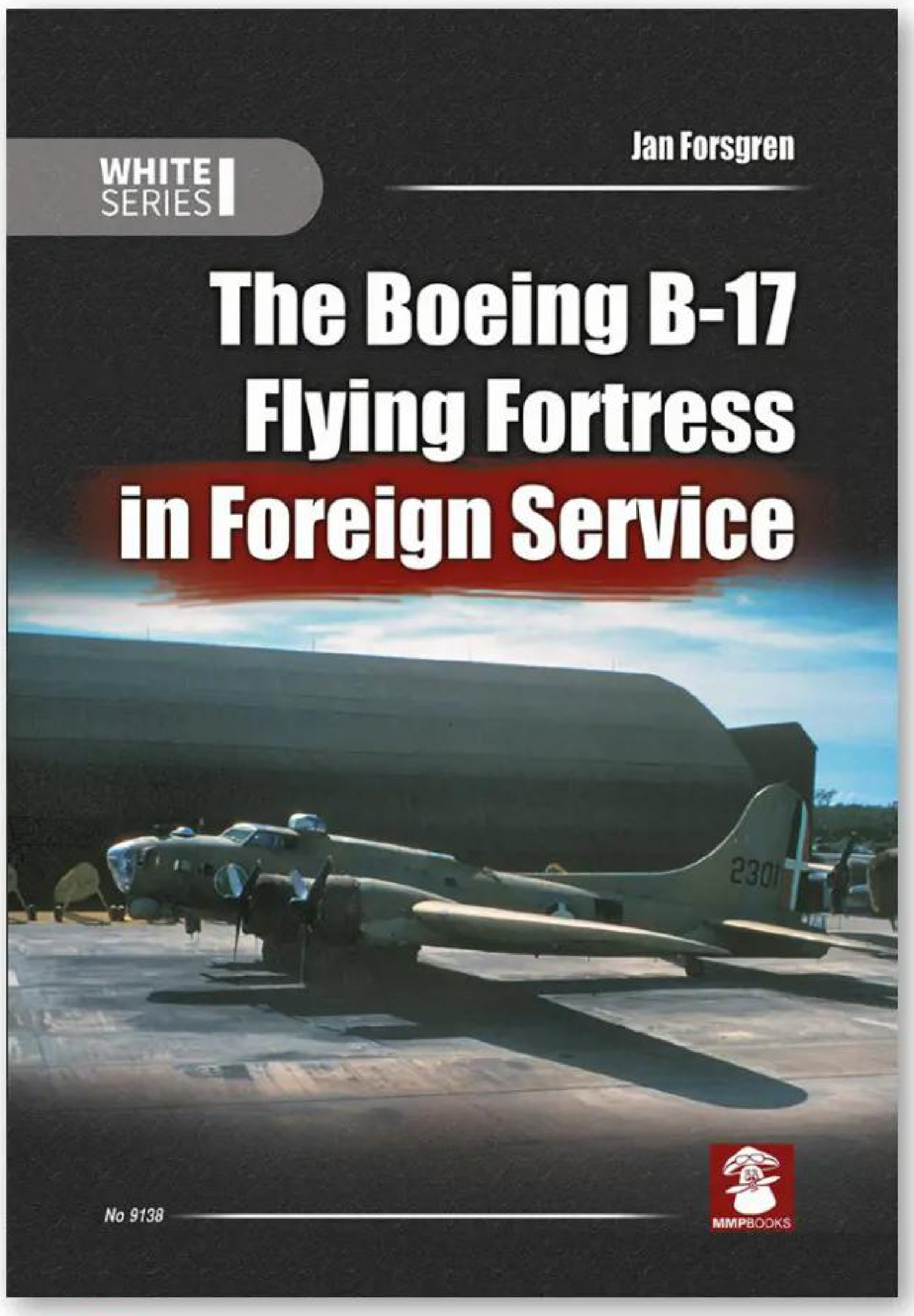
031: HURRICANE SURVIVORS by Gordon Riley. 2025 marks the 85th anniversary of the pivotal Battle of Britain. The fighter that saw the most action was the Hawker Hurricane and this hardbound, very heavily-illustrated book is a guide to all the surviving examples. PUB AT $49.95, NOW $35


JOHN DIBBS · TONY HOLMES · GORDON RILEY
HURRICANE
HAWKER'S FIGHTER LEGEND
FOREWORD BY
WING COMMANDER TOM NEIL DFC*, AFC, AE

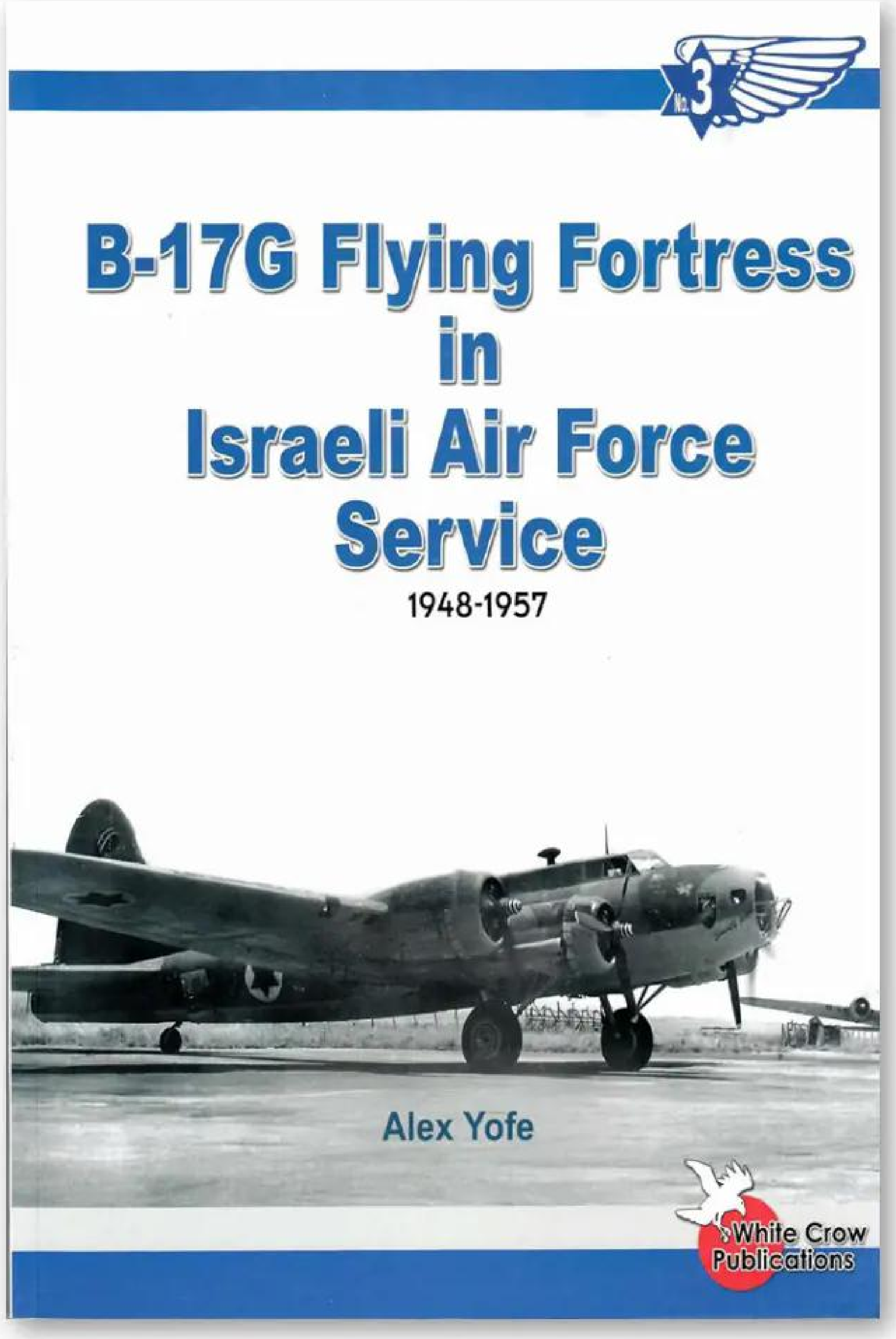
032: HURRICANE — HAWKER'S FIGHTER LEGEND by John Dibbs and Tony Homes is a lavish hardbound 256-page book that is heavily illustrated with photos of this famous aircraft. PUB AT $60, NOW $35


JOHN DIBBS AND TONY HOLMES
SPITFIRE
THE LEGEND LIVES ON
FOREWORD BY
SQUADRON LEADER GEOFFREY WELLUM DFC

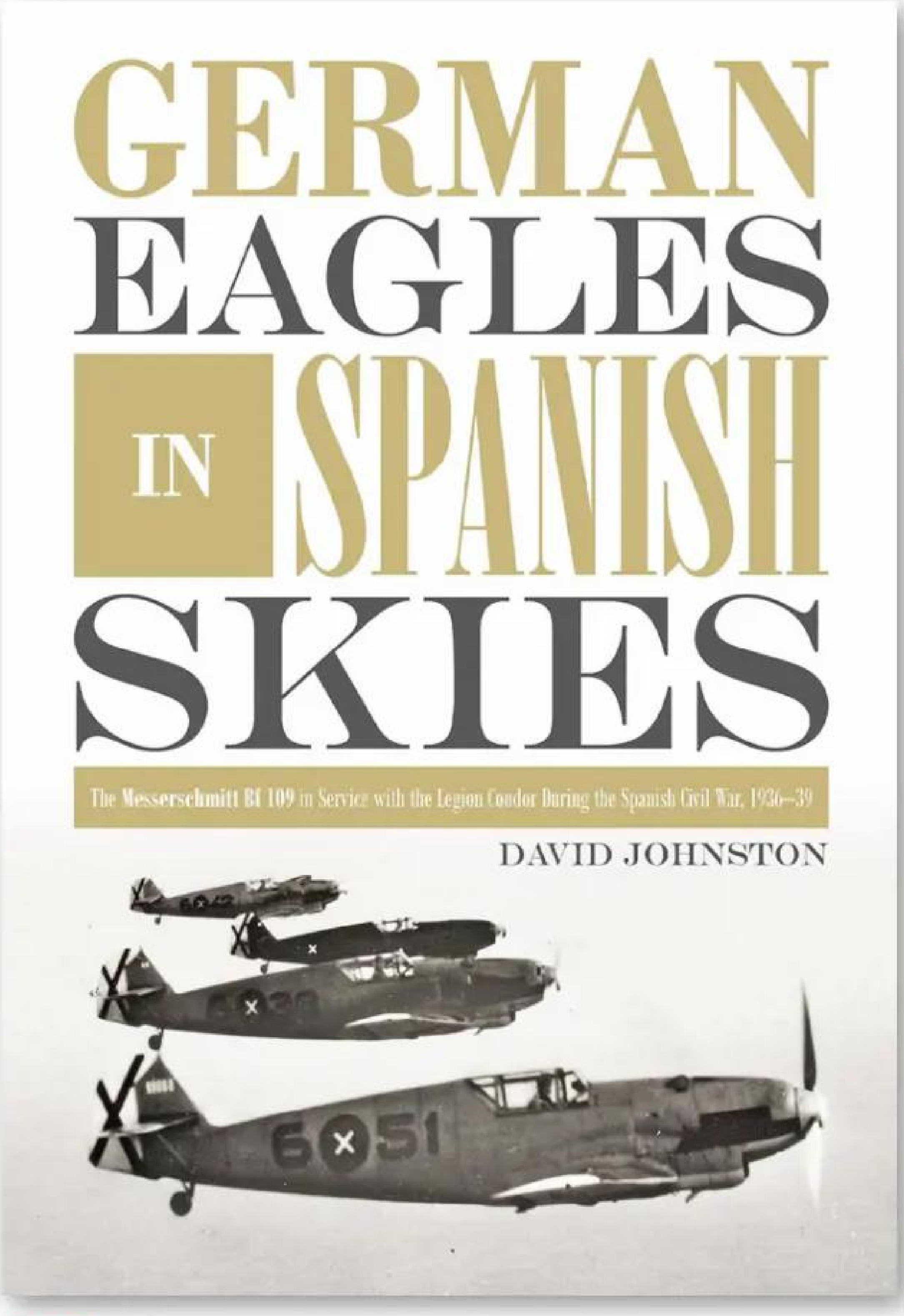
033: SPITFIRE — THE LEGEND LIVES ON by John Dibbs and Tony Holmes. Hardbound, 224 page heavily illustrated book on Britain's most famous fighter. Many accounts written by WWII pilots. PUB AT $63, NOW $35


WHITE SERIES
Jan Forsgren
The Boeing B-17 Flying Fortress in Foreign Service
No 9138
MMPBOOKS

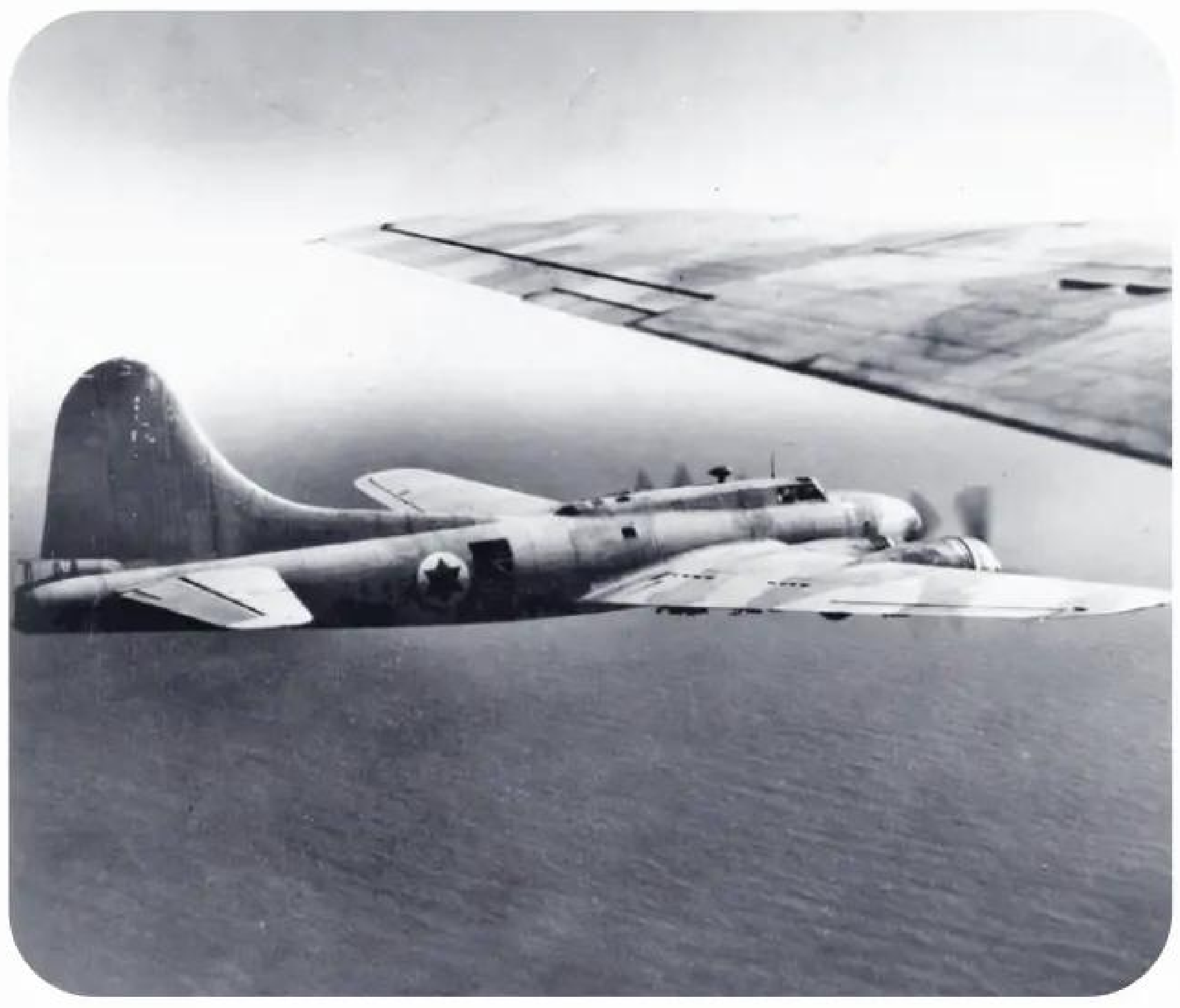
034: BOEING B-17 FLYING FORTRESS IN FOREIGN SERVICE by Jan Forsgren and Arthur Juszczak. Softbound, heavily-illustrated, 160-page book looks at every foreign country that operated the B-17. Essential reference for all B-17 enthusiasts. PUB AT $32, NOW $26


3
B-17G Flying Fortress in Israeli Air Force Service
1948-1957
Alex Yofe
White Crow Publications

035: B-17G FLYING FORTRESS IN ISRAELI AIR FORCE SERVICE by Alex Yofe. Smuggled B-17s saw heavy combat against Arabs. Many rare photos, color profiles, softbound. PUB AT $35, NOW $25


GERMAN EAGLES IN SPANISH SKIES
The Messerschmitt Bf 109 in Service with the Legion Condor During the Spanish Civil War, 1936–39
DAVID JOHNSTON
6 51

036: GERMAN EAGLES IN SPANISH SKIES by David Johnston. Extensive reference on early Messerschmitt Bf 109s operated by the Legion Condor during the Spanish Civil War. Hardbound, 176 pages, heavily illustrated. PUB AT $45, NOW $30



QUANTITY	TITLE NAME	PRICE EACH	TOTAL DUE
	019 HOWARD'S WHIRLYBIRDS	$22	
	020 THE NIGHT HUNTER'S PREY	$22	
	021 LUFTWAFFE VICTORY MARKINGS	$25	
	022 WIDOWMAKER	$20	
	023 KNIGHTS OF THE BATTLE OF BRITAIN	$25	
	024 HAWKER'S EARLY JETS	$35	
	025 THE SECRET YEARS	$40	
	026 WE FLEW ALONE	$20	
	027 LOST AIRMEN	$22	
	028 P-51B MUSTANG	$38	
	029 PHOENIX	$40	
	030 NORTHROP DELTA AB AEROTRANSPORT	$22	
	031 HURRICANE SURVIVORS	$35	
	032 HURRICANE – HAWKER'S FIGHTER LEGEND	$35	
	033 SPITFIRE – THE LEGEND LIVES ON	$35	
	034 BOEING B-17 FLYING FORTRESS IN FOREIGN SERVICE	$26	
	035 B-17G FLYING FORTRESS IN ISRAELI AIR FORCE SERVICE	$25	
	036 FLYING TIGER ACE	$30	
	ORDER OVER $100 AND TAKE OFF AN ADDITIONAL 10%!		

(Domestic Postage is included in the purchase price.
Canadian and foreign orders please call
1-818-700-6868 or email *ed@challengeweb.com*
for additional postage cost by title.)

DEDUCT DISCOUNT ____

MERCHANDISE TOTAL ____

CA Residents add 9% Sales Tax ____

TOTAL DUE (U.S. Funds Only) ____

CALL 818-700-6868 FOR IMMEDIATE SERVICE!

Name ____________________

Address ____________________

City ____________________ State________ Zip + 4 ________

Telephone Number (in the event we need to contact you): ____________________

E-mail address: ____________________

EXTRA DISCOUNT!

BUY OVER $100 AND TAKE OFF AN ***ADDITIONAL 10%***

Challenge AVIATION BOOK CLUB

Payment Enclosed (Orders must be prepaid in U.S. funds)

○ Check ○ Money Order ○ Credit Card

Card # ____________________

CVV # ____________________

Expiration Date ____________________

Signature____________________

SEND TO:

CHALLENGE ABC
9800-D Topanga Canyon Blvd.
#368
Chatsworth, CA 91311

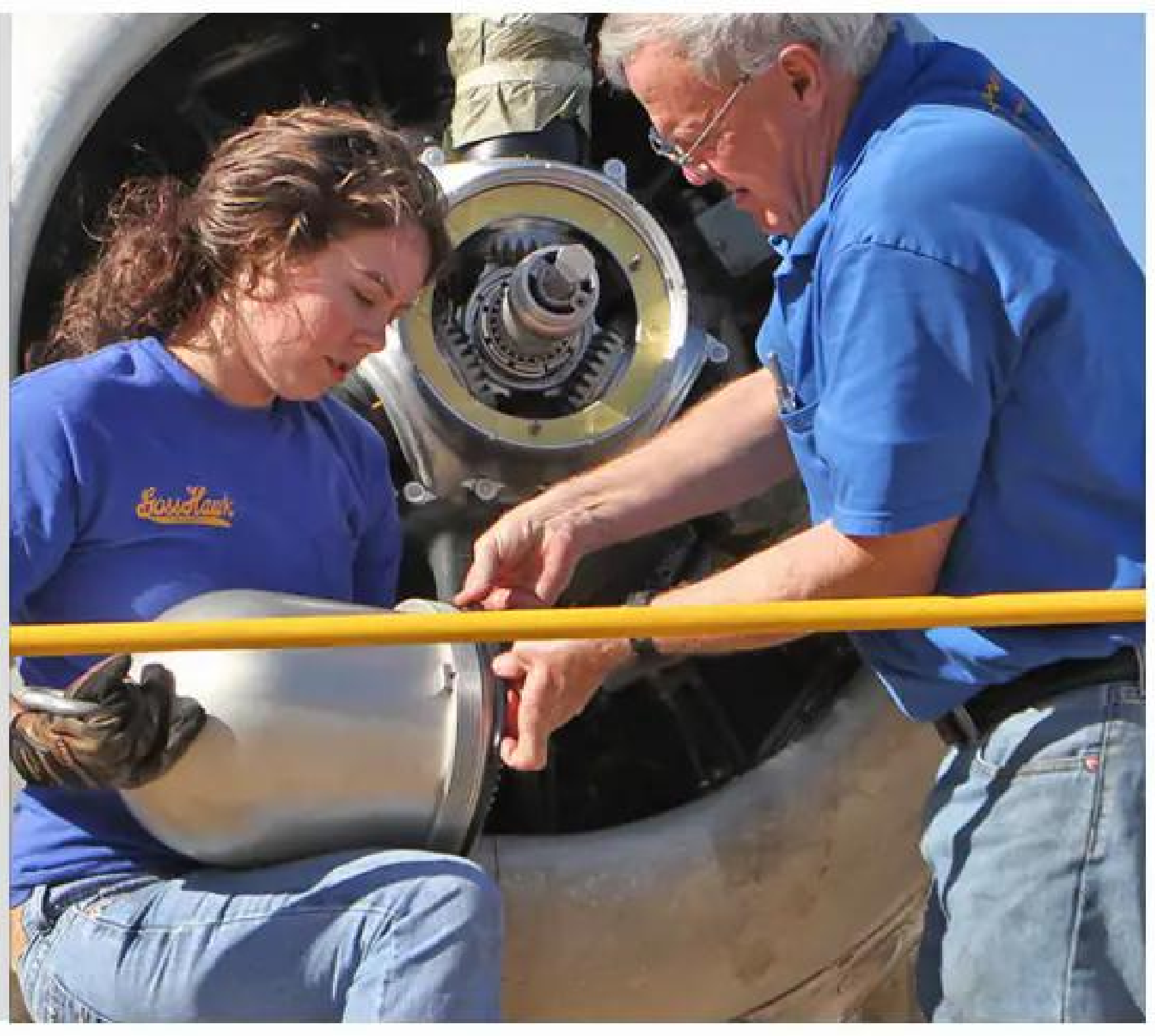
OR, ORDER AT:

1-818-700-6868

(continued from page 16)

Lindsey and Dave Goss after she and a customer arranged a special flight for Dave in a Huey.

Lindsey and Dave removing a prop hub from the Privateer. "We were doing some maintenance on the PB4Y-2 when word came that it had to fly to escort the Martin Mars and we had less than two days. We literally had to scramble to get the work done but the Privateer was ready when the time came," said Lindsey. (Zdenek Kaspar)

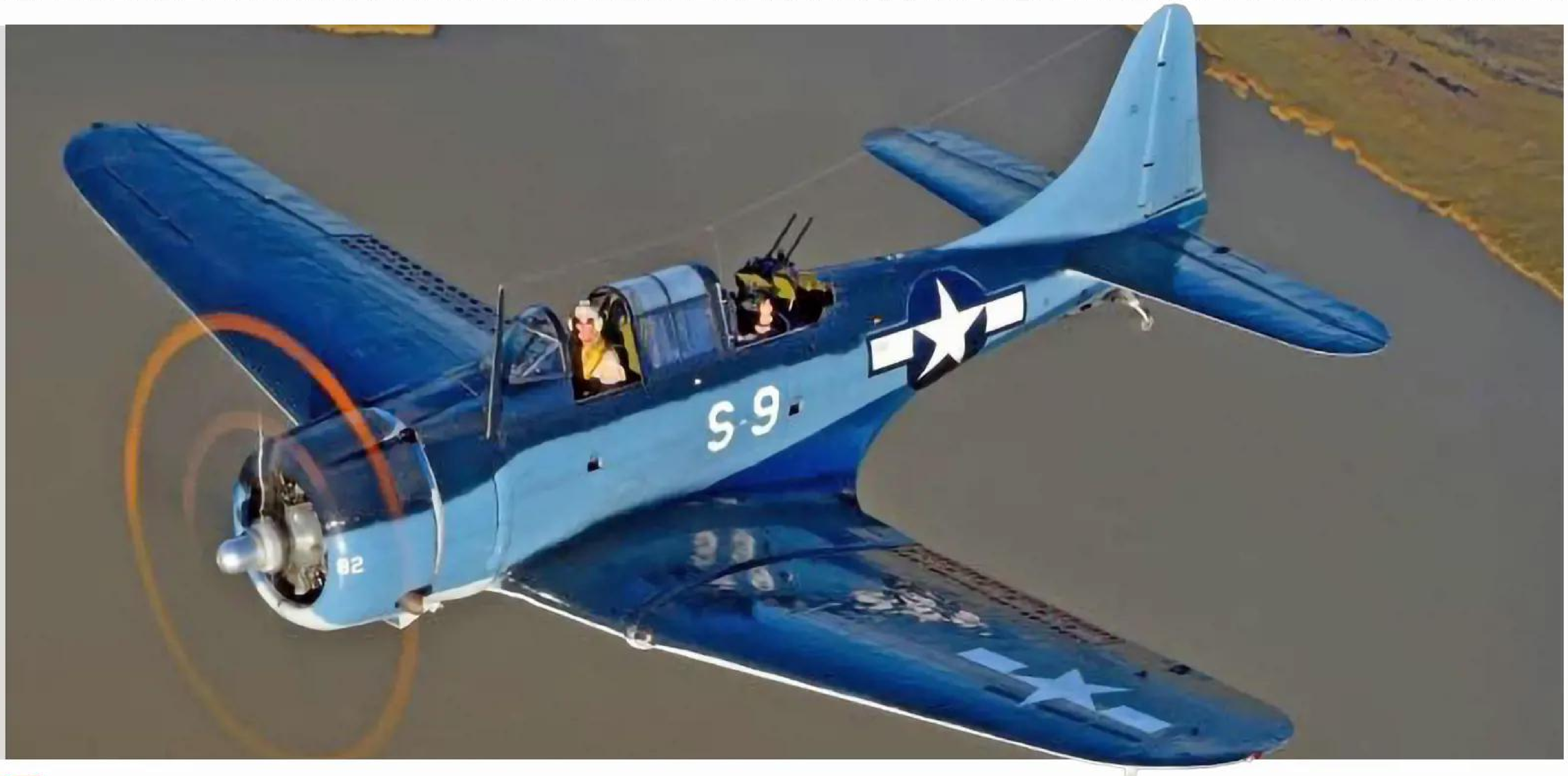


Working on a Merlin with Jose Flores of Vintage V-12s.

LINDSEY TAKES THE REINS

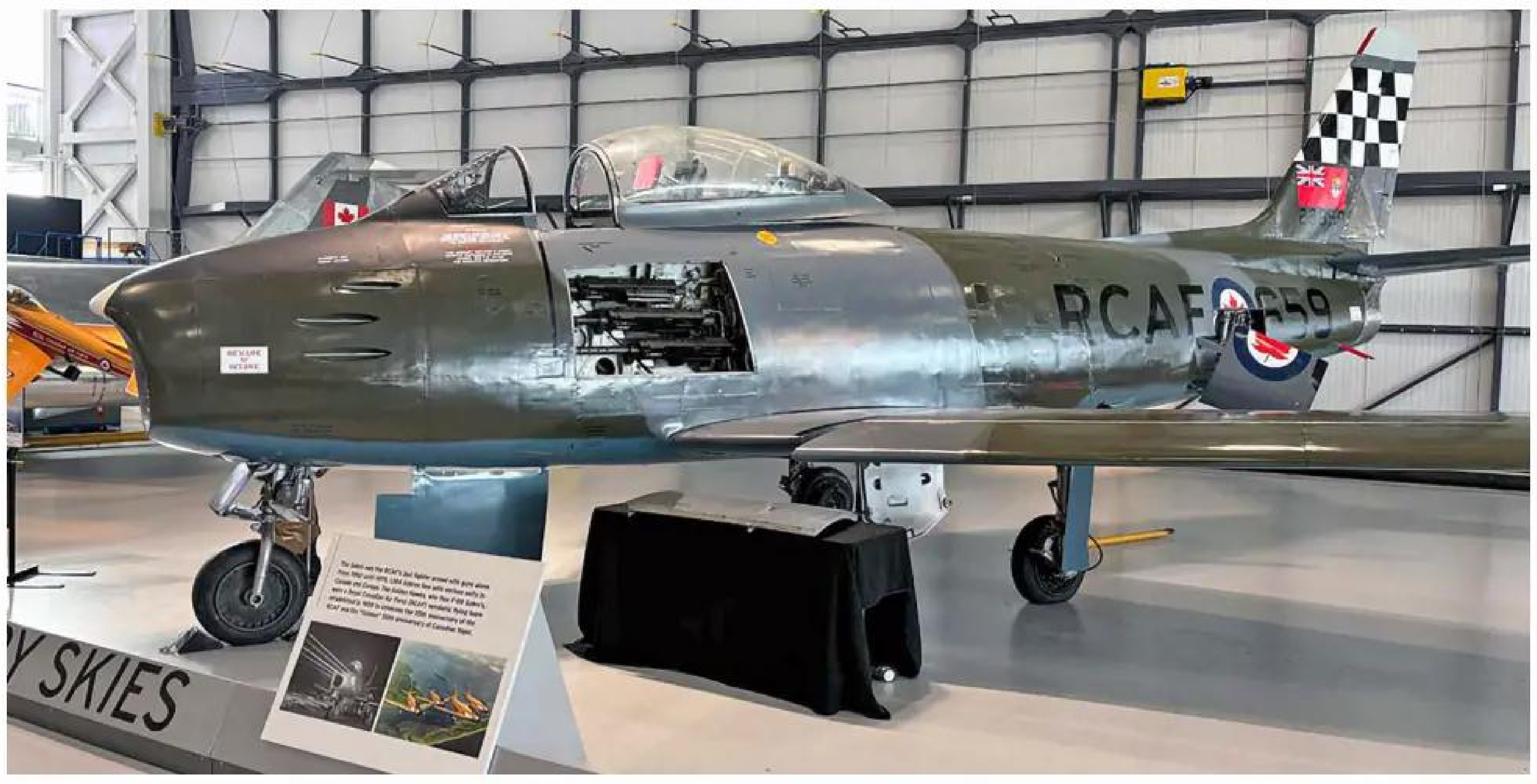
"I have decided to reduce my work week from seven days to four," said GossHawk Unlimited's Dave Goss. "I order to do that, daughter Lindsey will now be in charge." Those readers familiar with the first-class restoration facility located at Casa Grande, Arizona, know that Lindsey has literally been a fixture in the hangar since she was a child. "Lindsey grew up helping me with small jobs at first and then she moved on to larger and larger tasks. Today, she can single-handedly remove an R-2600 cylinder." Currently, GossHawk is extremely busy with all its regular customers plus the addition of two Focke-Wulf Fw 190 restorations. "I have developed a deep respect for these historic aircraft," said Lindsey "and through the teaching of my dad I can pretty much state that I fully understand the restoration process — a process that becomes more in-depth and complex as each year goes by." Dave states, "I plan to be in shop most days and am always on call if Lindsey needs an extra pair of hands." So, along with Lori at Cal-Pacific in Salinas, we now have two women running a pair of the world's best restoration facilities and that is a good thing.

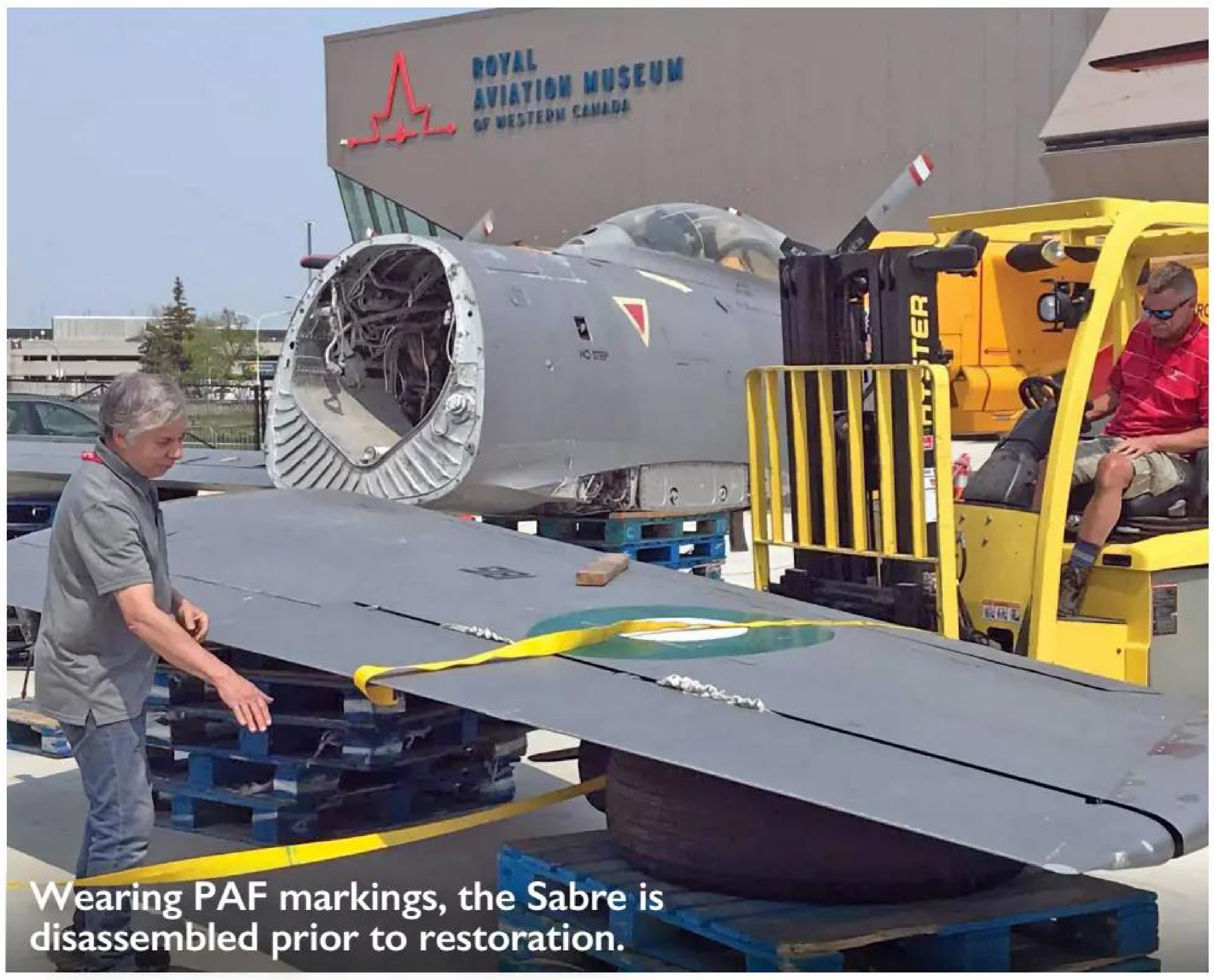
The Dauntless in flight. The aircraft actually started out life as a USAAF A-24B Banshee and was acquired by the Mexican Air Force after WWII. Sold surplus, the plane became XB-ZAH and was used for aerial mapping. It was acquired by Tallmantz Aviation as N74133 and flown to Orange County Airport in 1964. For a time, the aircraft was displayed at the Admiral Nimitz Center in Fredericksburg, Texas, before being acquired by Lone Star and restored as N93RW.

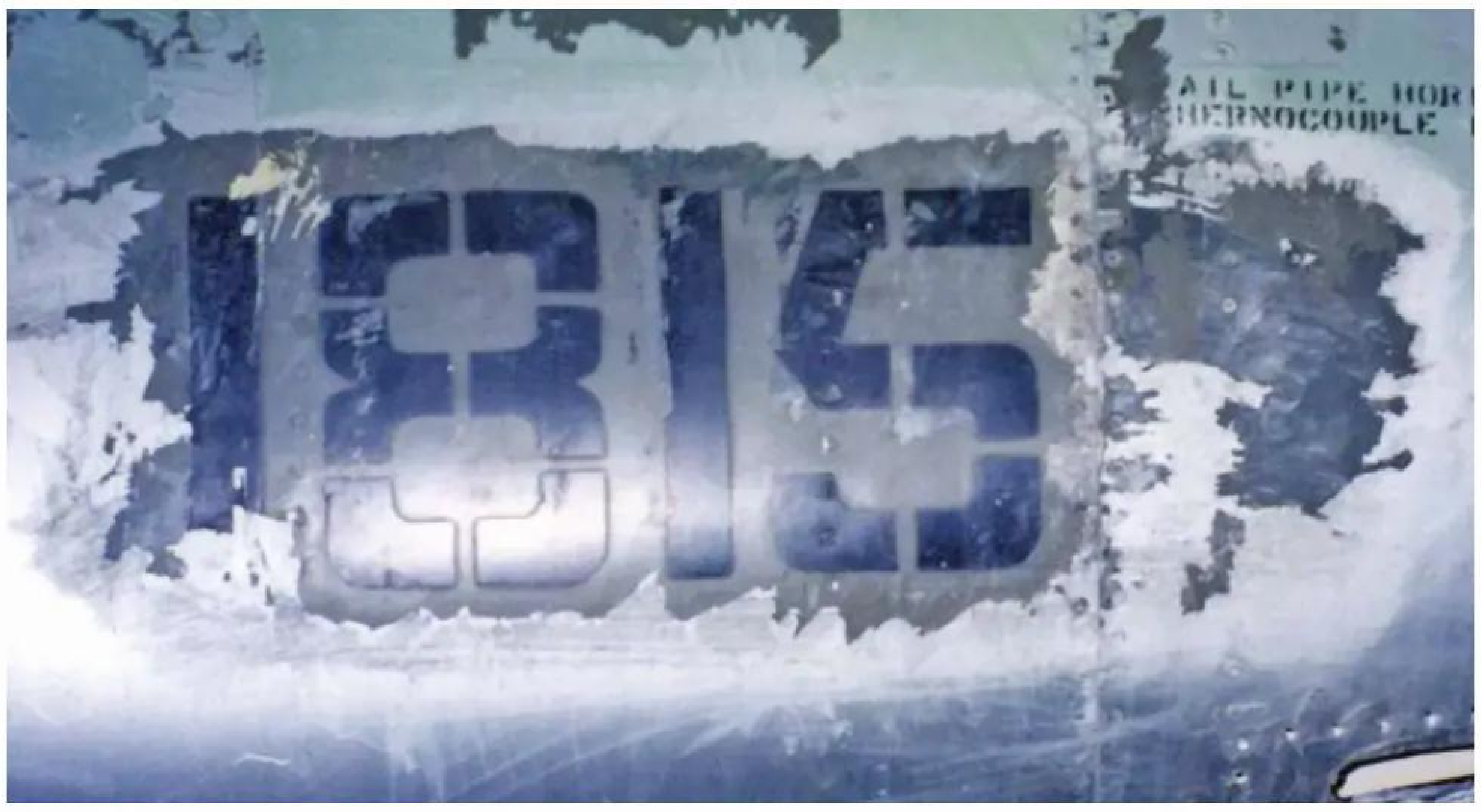


FAGEN FIGHTER ACQUIRES DAUNTLESS

The ever-growing Fagen Fighters WWII Museum has acquired the Douglas SBD-5 Dauntless from the ever-depleting Lone Star Flight Museum in Houston, Texas. Lone Star, once a leading light in aviation museums, is now sort of a sad shell of what it used to be. Many of the museum's significant aircraft have been sold off — both flyers and planes that were damaged in the disastrous storm surge that flooded the museum when it was located in Galveston. We have noted in previous issues that aviation museums need to be extremely careful in how they proceed with expansion. The move from Galveston to Ellington Field made sense but the construction of an expensive "Taj Mahal" facility probably was unrealistic if the museum hoped to retain a positive financial footing. That said, Fagen Fighters WWII Museum seems to be doing it right — a very nice but unpretentious facility that houses not only a superb collection of aircraft but also a skilled restoration shop responsible for some really great aircraft. This focused approach is what is needed in today's aviation museum community. Besides the problems that beset Lone Star, we have seen the failure of the once-grand Museum of Flying at Clover Field in Santa Monica, the collapse of the Airline History Museum in Kansas City, along with several others. Fagen Fighters WWII Museum in Granite Falls, Minnesota, is doing it right and we will be having a feature on this operation later this year.


The completed Sabre restoration on display.

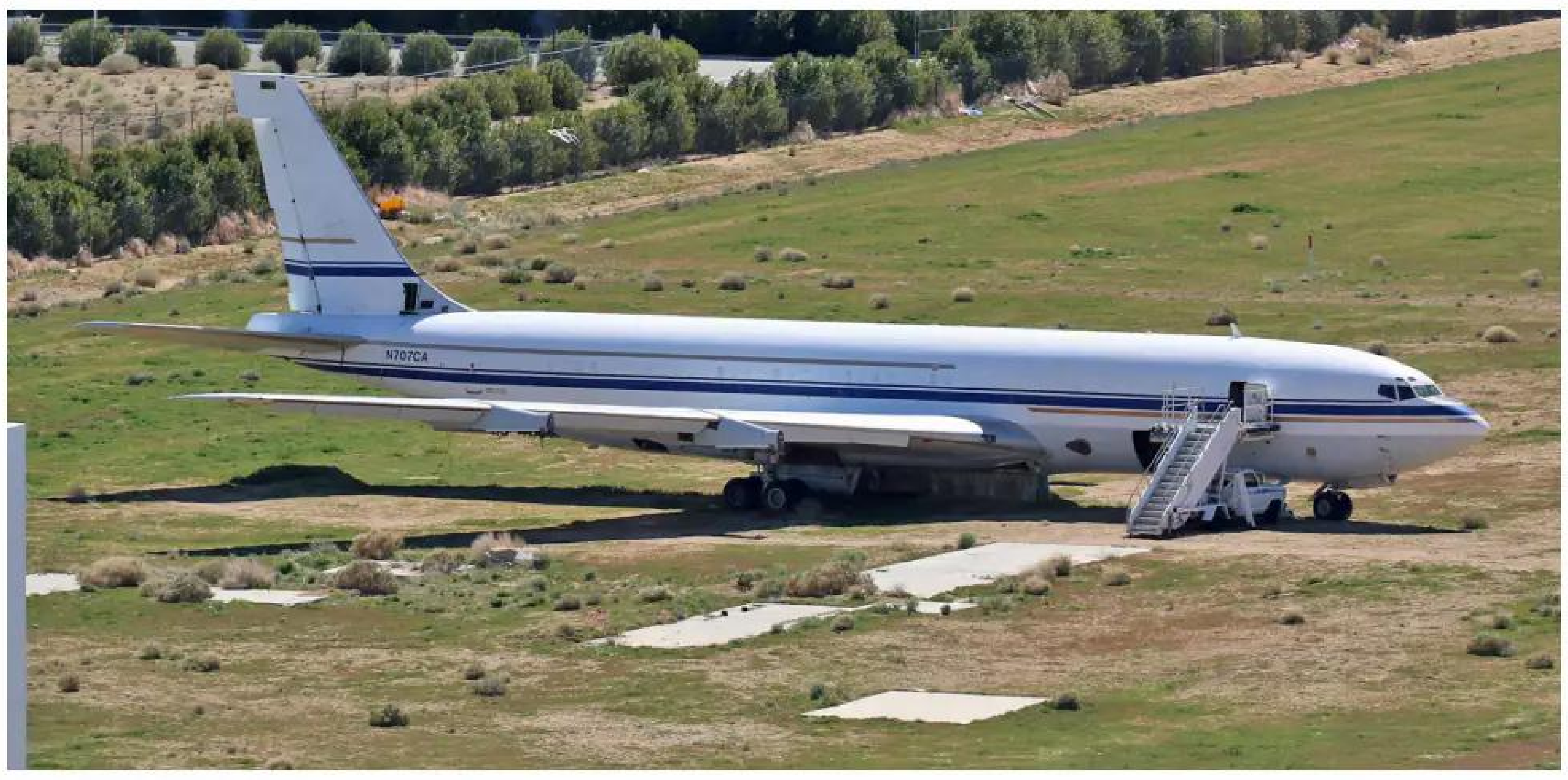

Wearing PAF markings, the Sabre is disassembled prior to restoration.

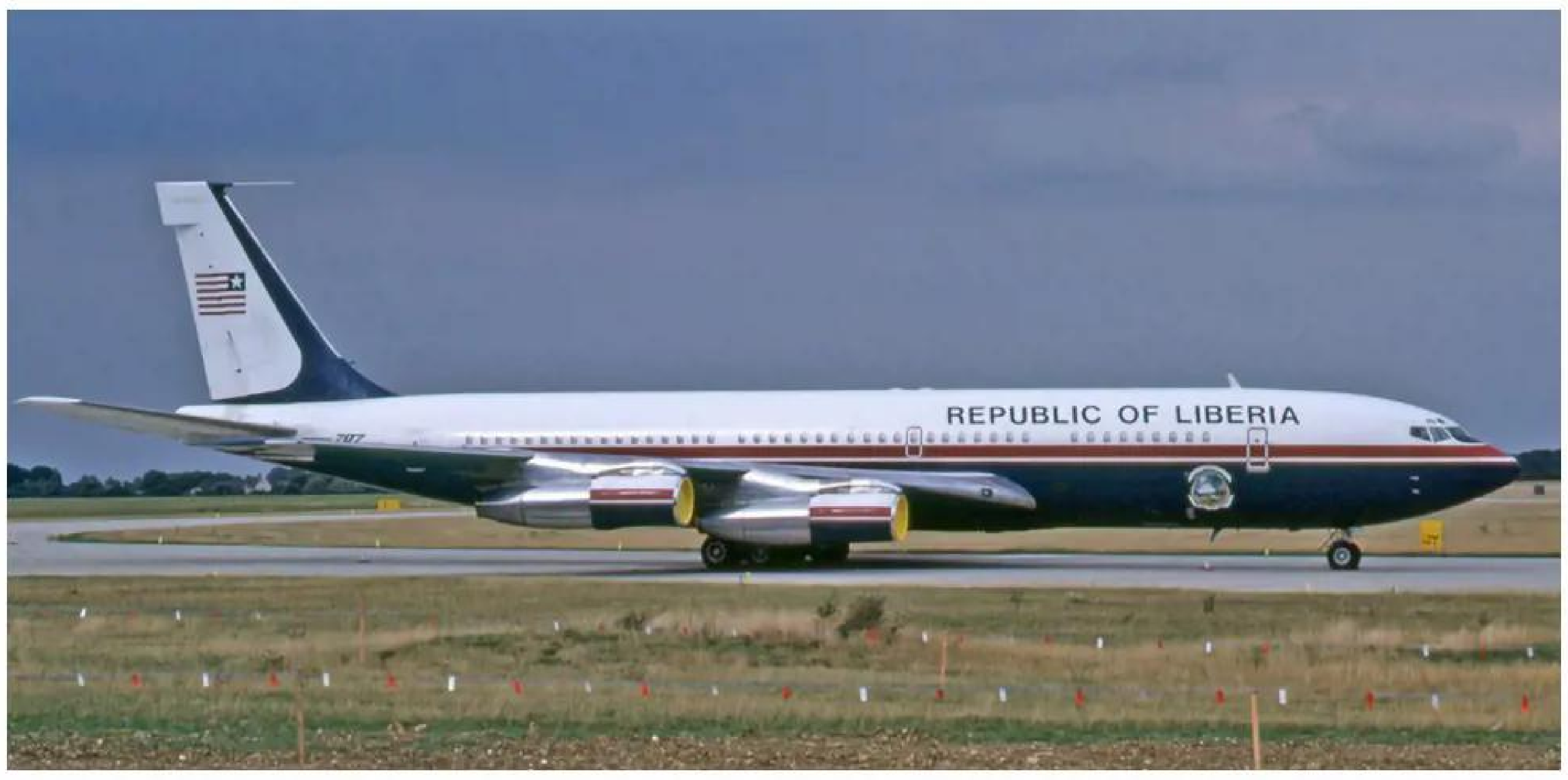

Sanding down through layers of paint, including the original *Luftwaffe* camouflage, revealed the aircraft's serial.

The volunteer crew with the nearly reassembled Sabre.

SABRE ON DISPLAY

On 22 January, The Royal Aviation Museum of Western Canada unveiled its latest project in the Museum's Military Skies Wing. The aircraft is Canadair Mk. 6 Sabre serial 1815 and it was the last Sabre built when it rolled off the Canadair production line on 9 October 1958. From 1951 to 1963, the Sabre was the first line of defense against the threat of communism in Europe. A dozen RCAF squadrons operated across France, West Germany, and the United Kingdom. This particular aircraft was built as part of an aid program to rebuild the *Luftwaffe* and it would fly with 72 Fighter Wing out of Oldenburg with the fuselage code of JB+372. Canadair would build 225 Sabre Mk. 6s for Germany. After being extensively operated by the Germans, the Sabre was replaced with the Lockheed Starfighter and the plane was transferred to the Pakistani Air Force. In 1996, Air Commodore Kamran Qureshi of the PAF donated the Sabre to the museum. After displaying the Sabre for some time in Pakistani markings, the decision was made to restore the fighter in RCAF markings. A volunteer force was formed and they would expend 6000 man-hours bringing the jet into fine display condition. In the pages of *Air Classics*, we have illustrated many of the ex-RCAF Sabres that were converted into drones and expended as aerial targets and it is a shame that a few of these aircraft could not have been saved and distributed to Canadian museums.


The Boeing 707 N707CA at Mojave Airport minus its powerplants.


This is how the 707 looked when it was "air force one" of Liberia.

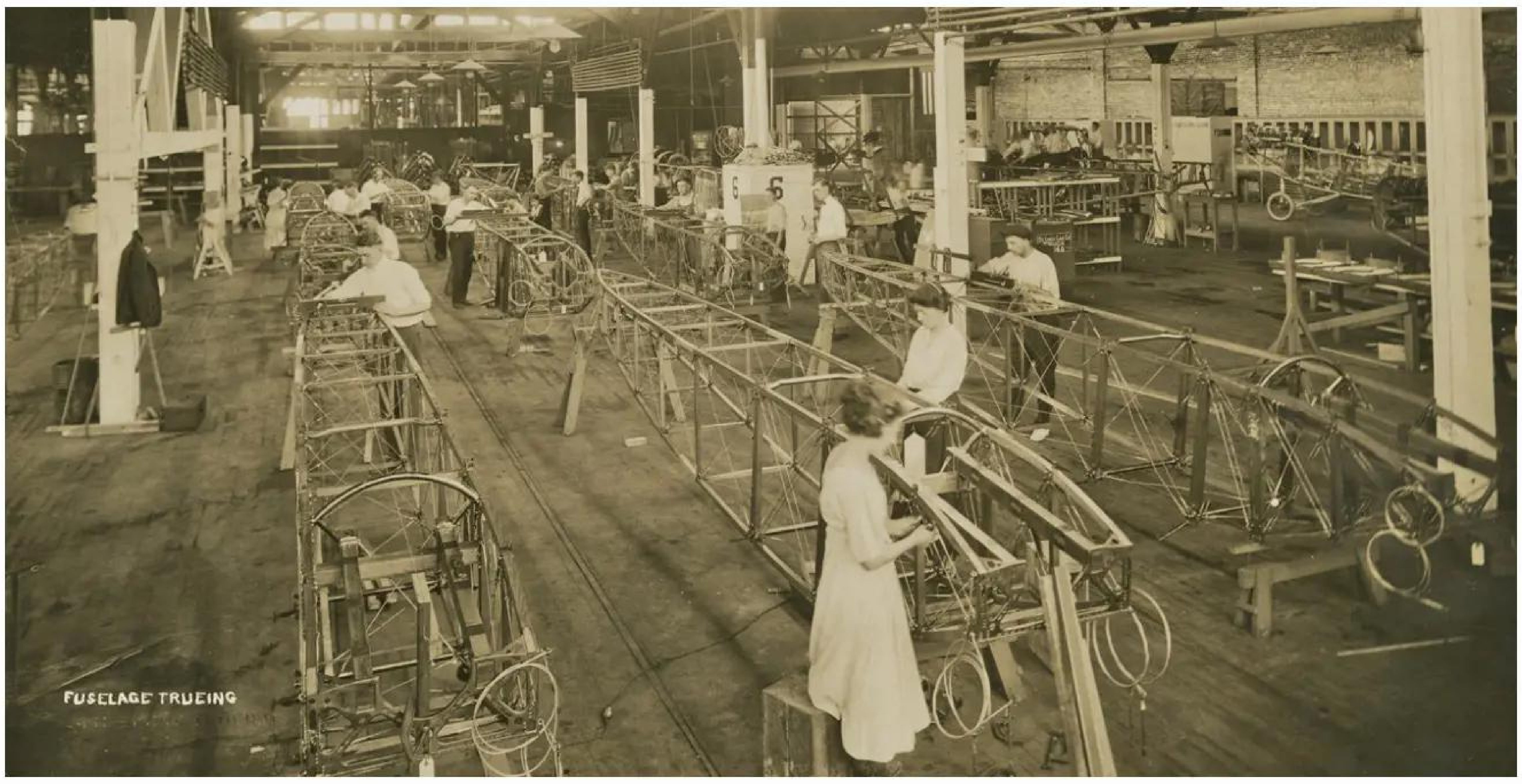
RARE SURVIVOR

Parked a distance from the main ramp at Mojave Airport is a Boeing 707. Although engineless, the aircraft appears otherwise complete. As we have mentioned, America's first-generation of jet airliners has rapidly disappeared and examples of 707s and Douglas DC-8s are now rare and far between. This particular airframe carries the registration of N707CA and it was originally built for Northwest Airlines as N353US and the airline took delivery of the plane in 1963. By 1972, it was with Cathy Pacific as VR-HGO. When Cathy finished with the jet, it began going through a number of operators and carried numerous registrations including VR-CAO, N651TF, N351F, EL-SKD, G-BZSA, VR-BMV, VR-BOR, HZ-SAK, HZ-SAK1, P4-FDH, and finally N707CA. When it was registered as EL-SKD it was actually the "air force one" of Liberia and was used to haul around that nation's despot while he was in power. As N707CA, the aircraft is owned by Omega Air who developed the 707 aerial refuelers that are now utilized on civilian contract by the US Navy. Hopefully, this airframe can be preserved since it is in remote area of the field and is really not taking up what would be considered as valuable space. **AC**

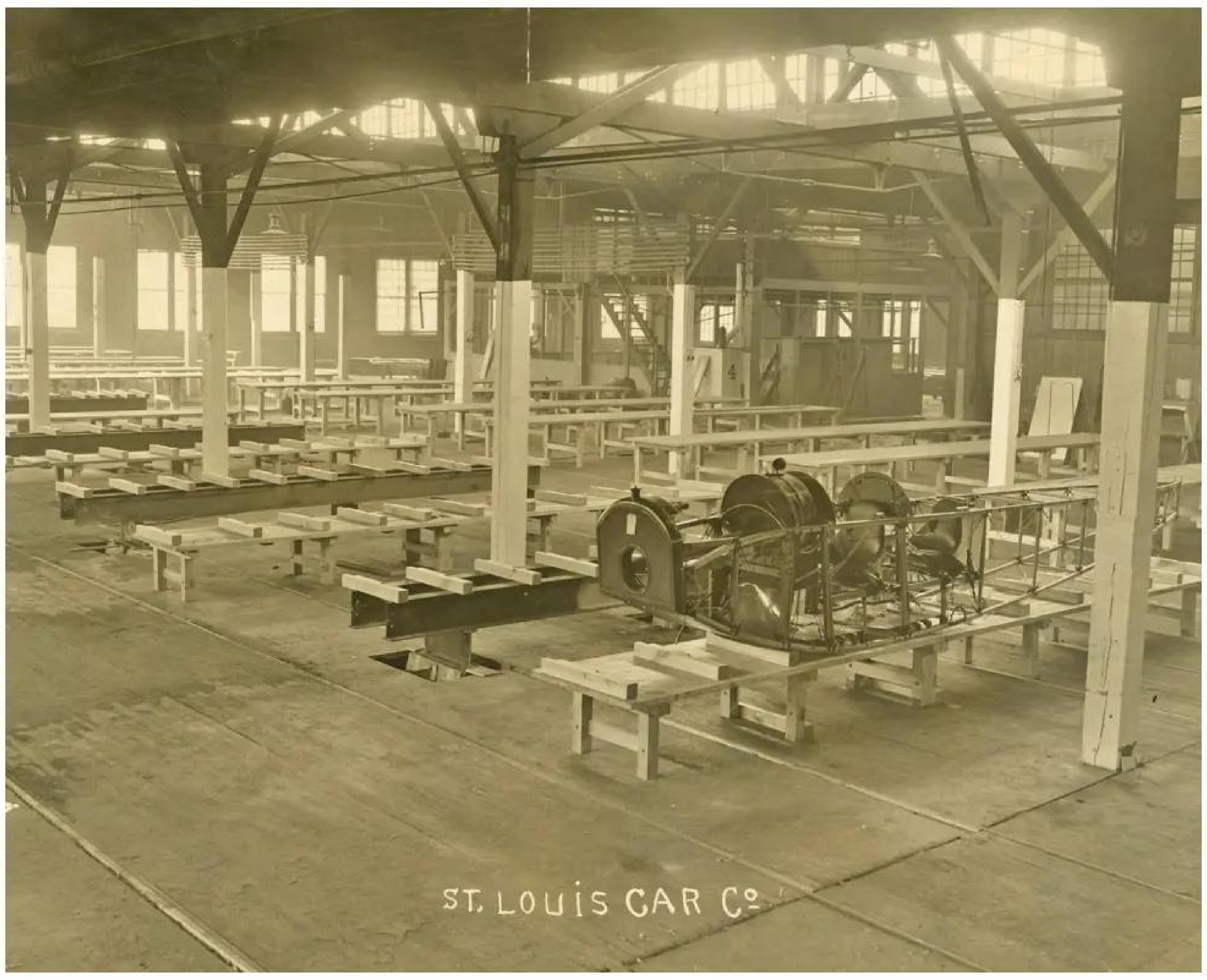
THOSE ST. LOUIS JENNYS

I liked Roger Cain's article on the fly-in at the Western Antique Aeroplane and Autombile Museum in the January issue. I have been to WAAAM twice and it is a must stop for any *Air Classics* reader. However, what really interested me was the sidebar of "Aircraft of the St. Louis Streetcar Company." I knew about the YPT-15 but I had no idea regarding the other planes the company built, especially since they went all the way back to the earliest days of aviation. I have a neighbor that has done some restoration work on vintage aircraft for others and he recently completed some Curtiss JN-4D components for a project. I took him the issue and pointed out the St. Louis information. He has collected a lot of information on JN-4Ds and he had some original prints of the Jenny trainers built by the company. I copied the prints and have enclosed them to fill in another blank on this little-known company.

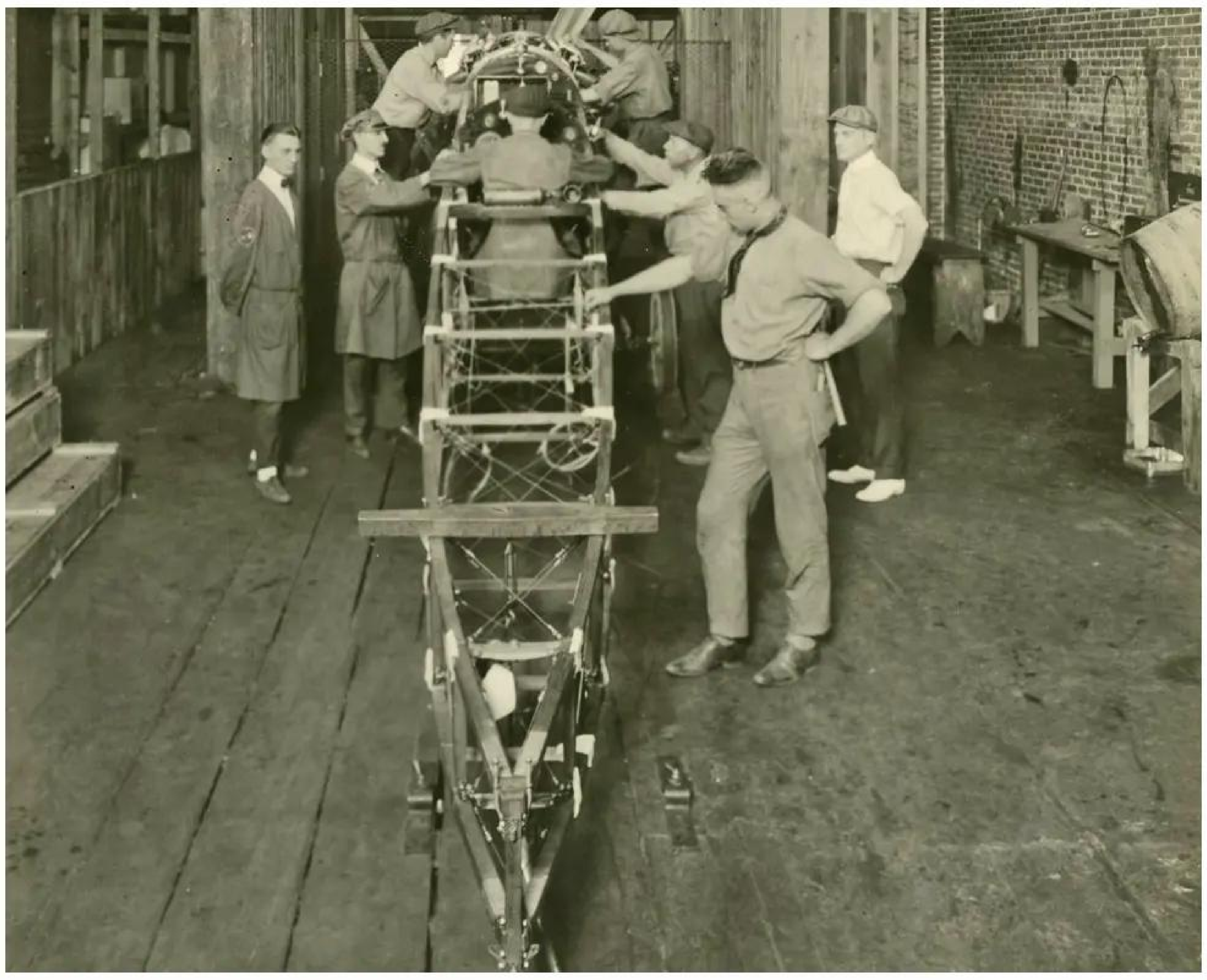
Robert Baker
Seattle, WA



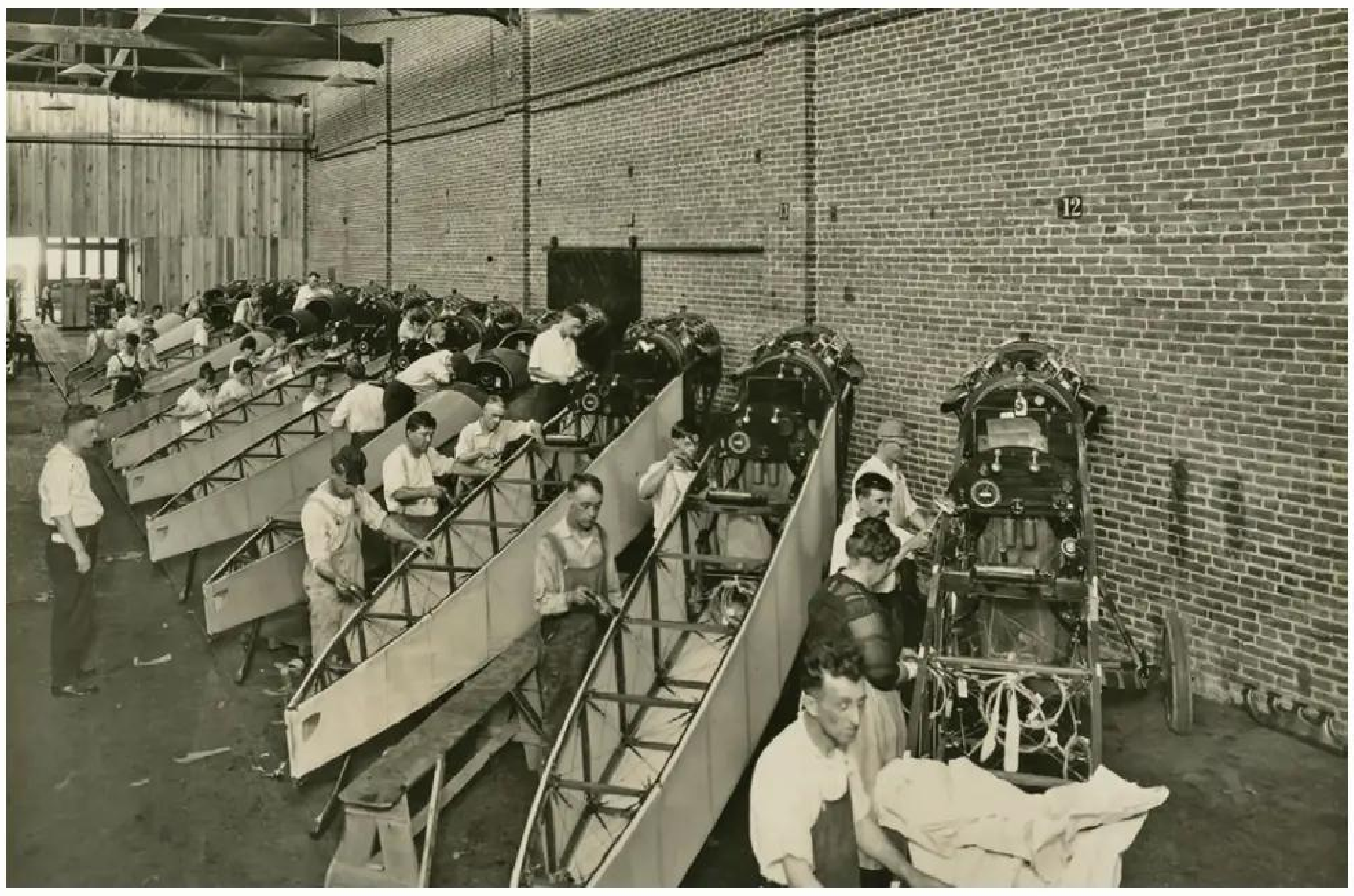
Men and women working to true the fuselages.



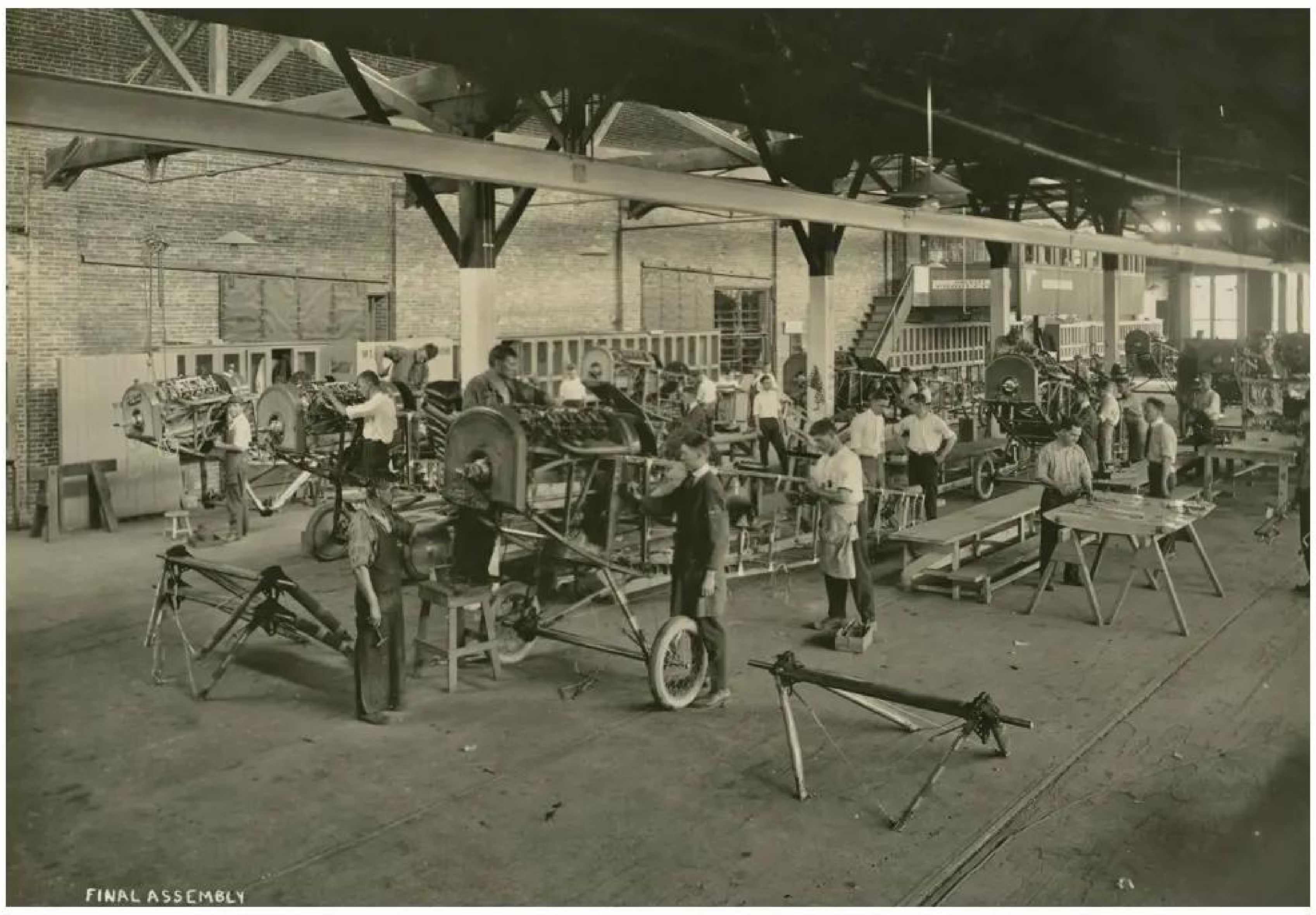
A St. Louis Jenny fuselage in a jig. As can be seen, the jigs were simple affairs built of wood.



This print was marked "engine test" and is presumably where the OX-5 was installed.

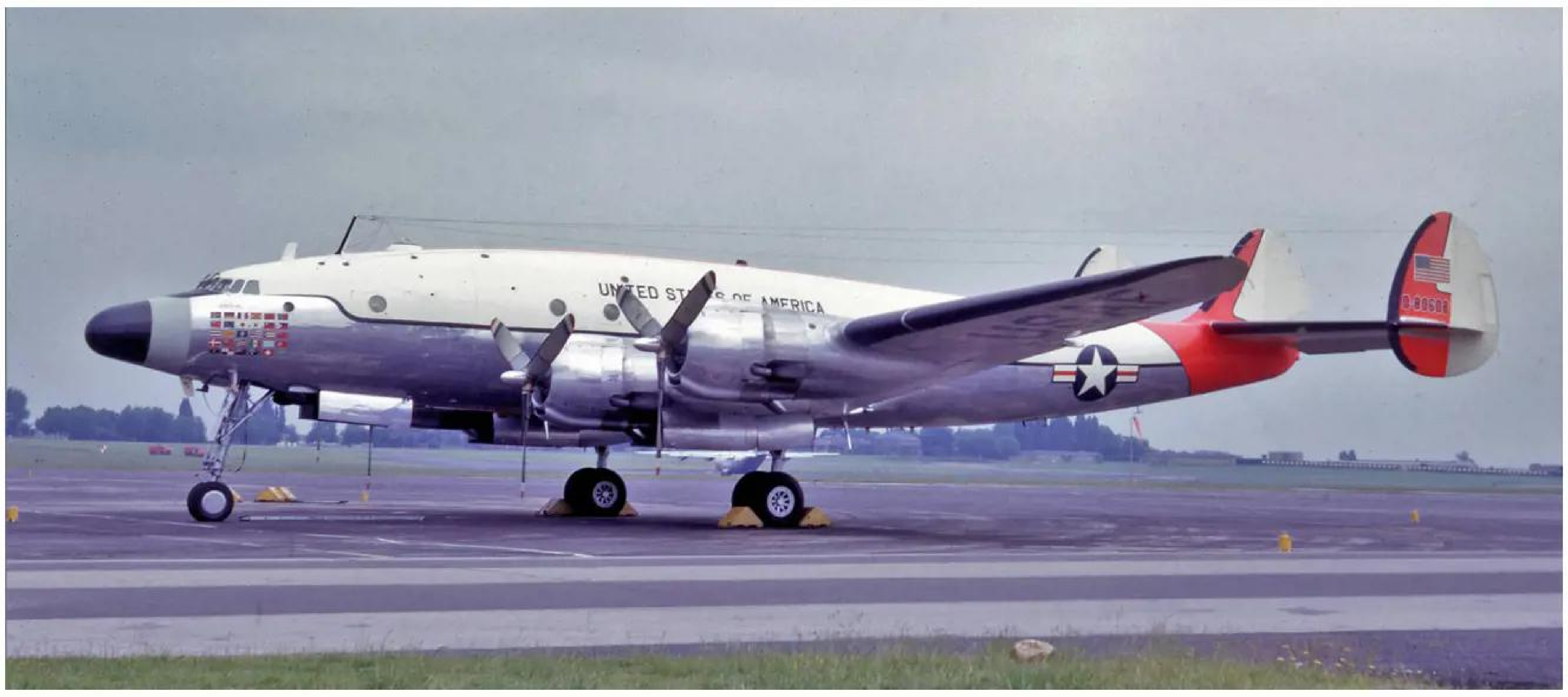


The company built 450 JN-4Ds and completed fuselages are receiving their fabric covering and then being doped. The complete lack of ventilation is noteworthy.



Fuselages undergoing final assembly. Note the landing gear struts in the foreground.

COLUMBINE II


UNITED STATES OF AMERICA
8608

This beautiful photo from Mr. Fischer shows the VC-121B maintained in immaculate condition with high-visibility markings, white top, and polished aluminum. Note the large panel with flags of all the countries the Connie visited painted directly below the cockpit.

As usual, I enjoy Ralph M. Pettersen's updates on our surviving Propliners so his article on *Columbine II* in the February issue was particularly welcome. I have always been interested in these early Constellations, especially those utilized by the military. *Air Classics* has always given fantastic coverage to the Connies that are still with us and I have just gone back and re-read the article on Rod Lewis' *Bataan* — what an amazing restoration and we all have to thank Mr. Lewis for this incredible contribution to aviation history. I am enclosing a photo of VC-121B 48-608 that I thought readers might enjoy. Of course, this was the only B variant and it was converted to VIP use prior to delivery. The plane made its first flight in October 1948 and was delivered to the USAF the next month. At first, it was going to become a presidential aircraft but this did not happen. After long service, the Connie was flown to Davis-Monthan AFB in 1968. Instead of being scrapped it became a large acreage sprayer with Aviation Specialties/Globe Air based out of Falcon Field, Mesa, Arizona. The aircraft finally ended its days donating engines and other parts to another Connie restoration and it was scrapped in 2002.

Mel Fischer
Dover, DE

FLY-IN DRIVE-INS

Reader James Rybarczyk read Adam Stanton's article on "Fly-In Drive-Ins" and also saw the reader response. He had noted the postcard of the Bonanza at Elwood, Indiana. James put us in contact with Alan Hunter who writes a regular column for the *Weekly View*, a community newspaper that covers Indianapolis and the surrounding area. We contacted Alan who very nicely sent us the full story of the "the world's only fly-in drive-in restaurant" and we have excerpted some history from his story. All of Alan's columns are packed with local history and Alan has been able to find out some interesting facts and figures on this now sadly-gone grassroots airport:

AIR CLASSICS THE DIGITAL OPTION

North America's largest and most popular aviation history magazine is now available in a digital format. AIR CLASSICS has entered into partnership with POCKETMAGS to distribute digital subscriptions and back issues.

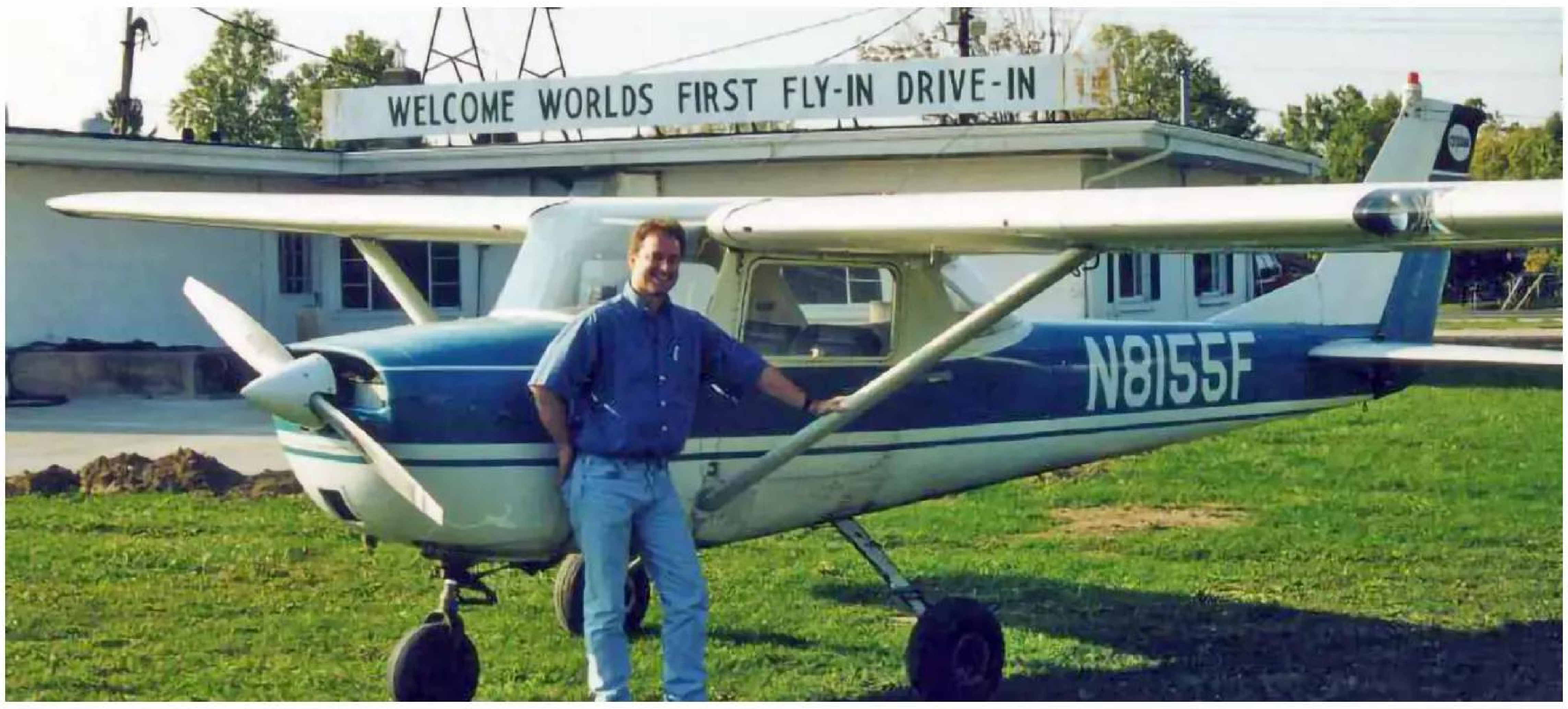
Please go to the official *pocketmags.com* website and you will get the "search bar" located near the center of the page. A search for AIR CLASSICS will take you to various options for digital subscriptions and back issues.

POCKETMAGS is an international website that allows subscription payment in a variety of currencies. They are professional and will quickly handle your needs.

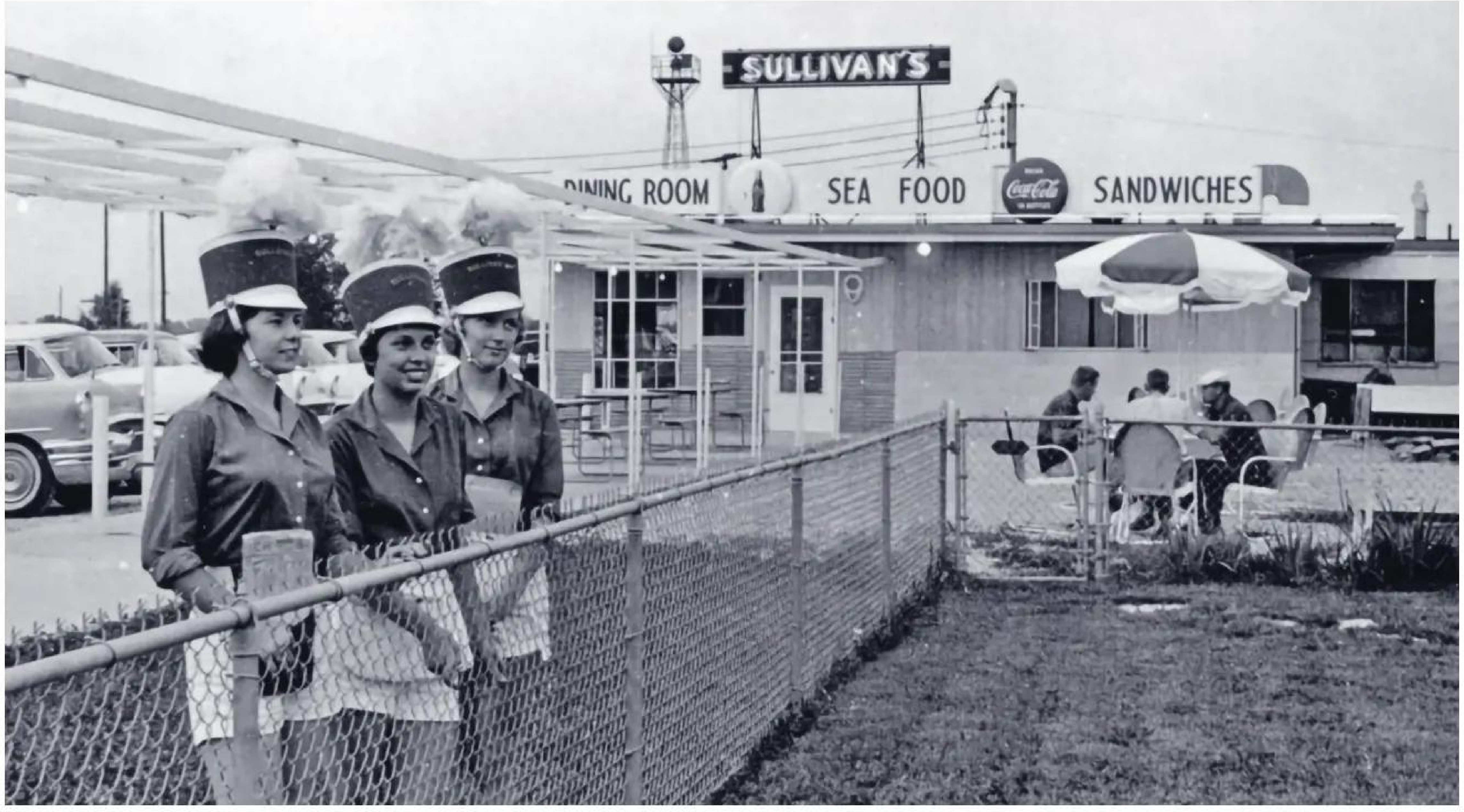
GO TO THE OFFICIAL WEBSITE AT *POCKETMAGS.COM.*

SWAMP CREATURE: MYSTERY OF THE EVERGLADES PB4Y
NOVEMBER 2023 • Vol.59/No.11
AIR CLASSICS
Where History Flies
EXCLUSIVE DIRECTORY! RENO UNLIMITEDS
SIX DECADES OF WINNERS!
THUNDERBIRD! IS THIS THE WORLD'S FASTEST MUSTANG?
RETURN OF RACE 64
VICKY BENZING'S PLUM CRAZY
COLORS OF WAR
RARE WWII IMAGES
MID-AIR TRAGEDY CANCELS FINAL RENO AIR RACE
ALL THE LATEST VINTAGE & VETERAN AIRCRAFT NEWS
KEEPING THEM FLYING
VINTAGE V-12s' FUTURE OUTLOOK
U.S./CANADA $9.99

BULLDOG!
GHOST OF ATKA ISLAND
MYSTERY OF THE EVERGLADES PRIVATEER
DOWN IN THE DESERT
CONSTELLATION
HALL BOATS FOR THE COASTIES


WELCOME WORLDS FIRST FLY-IN DRIVE-IN
N8155F

Mark Wright with his Cessna 152 at Elwood Airport with the restaurant in the background. This is the only photo we were able to find of an aircraft at Elwood.



Back in the day — appropriately uniformed car hops await the arrival of the next aircraft.

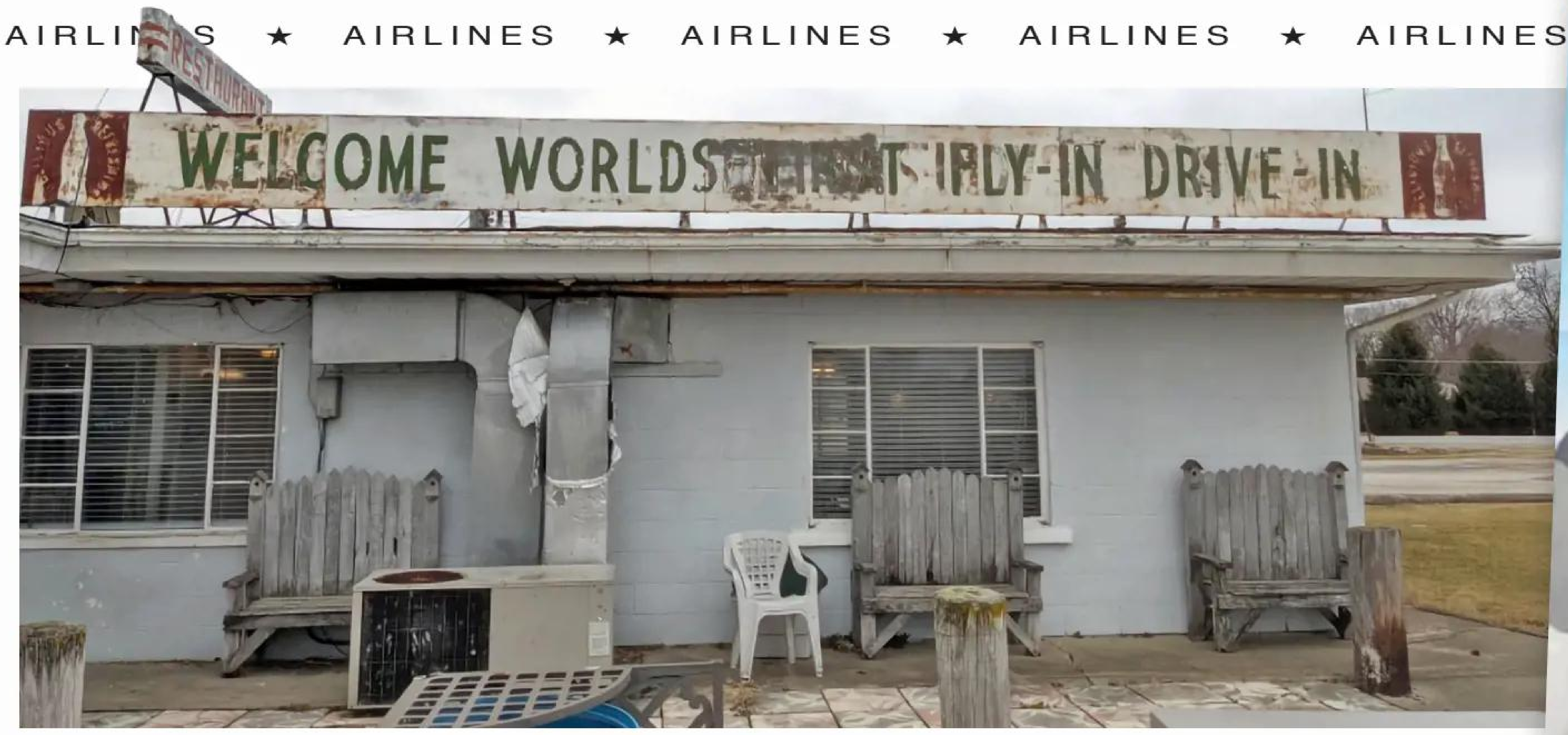
A couple of weeks ago, my wife Rhonda and I drove about 40 miles north of Irvington (Indiana) to Elwood to visit the world's first (and only) fly-in drive-in restaurant. Resting just northeast of the intersection of Indiana 37 and 13, the Airport Restaurant is located at 10130 State Road 37 on what was once the Elwood Airport. The planes are long gone and diners no longer rub elbows with pilots, but the Airport Restaurant is still the place where all the locals eat.

The airport was founded just after WWII by Elwood residents Don and Georgia Orbaugh. It featured two grass runways, measuring 2243-ft and 2076-ft. The sod landing strips accommodated single-engine planes. Don and Georgia owned and operated the airport for 56 years before it passed to daughters Ann Brewer and Donna Ewing.

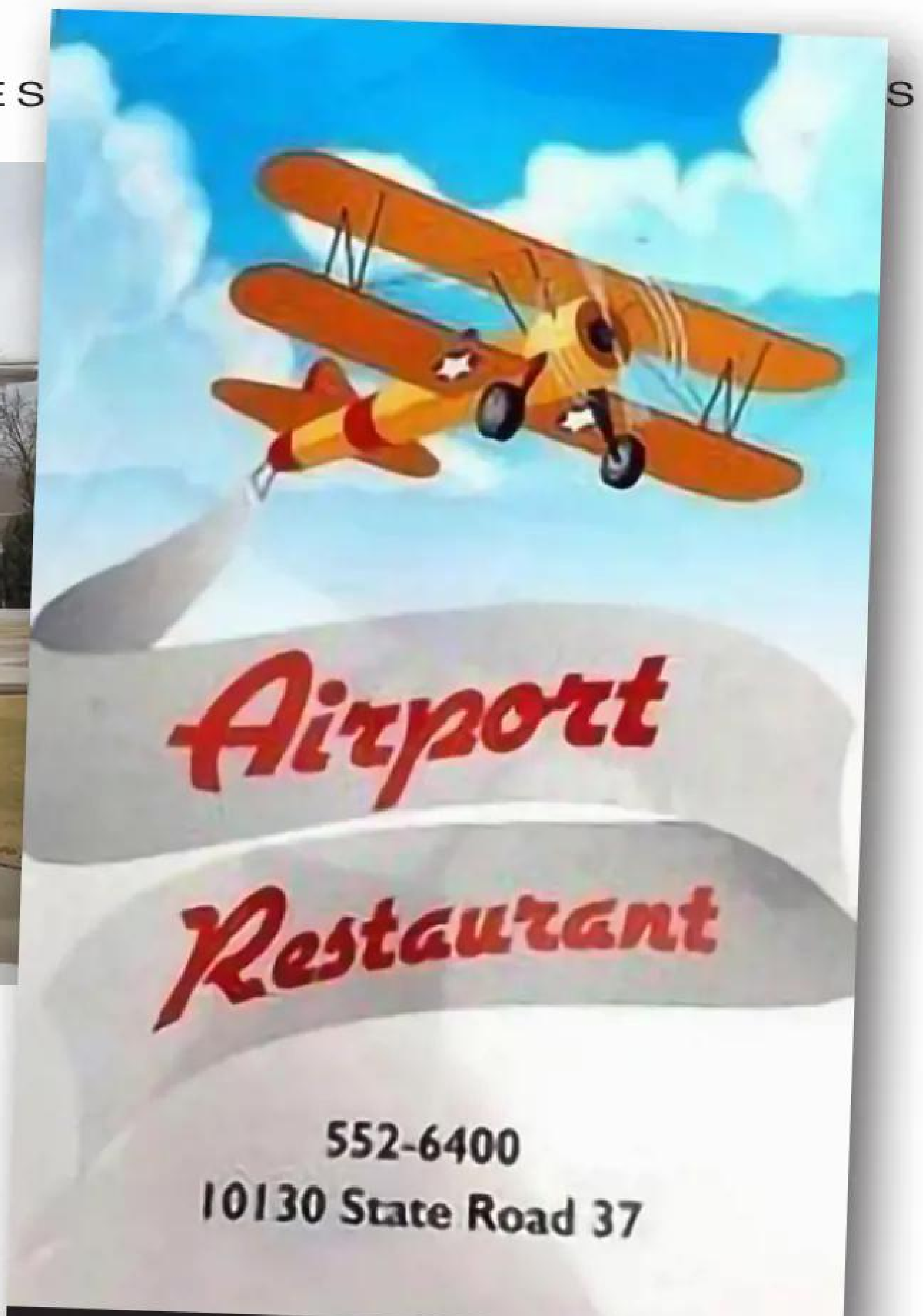
In 1952, "Sullivan's Airport Restaurant" gained statewide attention when it opened an ice cream shack staffed by pretty young carhops. By 1953, a dining room was added to the shack and young girls wearing tiny green uniforms with boxy matching band hats served curbside customers in their cars and pilots in their planes. Truth be told, the airport was really a "touch-and-go" facility where pilots practiced their landings and takeoffs. Most pilots flew into the airport to visit the restaurant and ogle the carhops. By the end of the 1950s, the novelty was over. There are a few photos (and at least one postcard) surviving of the Airport Restaurant during its heyday. The photos

Aviation Models
Desktop, Diecast, Balsa Kits, & Custom Models
www.aviation-models.com
P.O. Box 542
Sandisfield, MA 01255
(800) 591-4823
Check out our sister website.
The Aviation History Online Museum
www.aviation-history.com

Pratt & Whitney Engines and Parts
Zero-Time Engines in Stock
Complete Stock of Parts, Tools, and Accessories
R-985 • R-1340
R-1340 Geared
R-1830-92 and -94
R-2000 • R-2800
• Complete OHC R-985 and R-1340 Cylinder Assemblies — All with New Pistons • Also, OHC and New R-1830s and R-2800 CBs • Engine and Carb Gasket Kits • R-985 No-Blow Gaskets • Top OH Tool Kits • Spark Plugs
• Engine Mounts • Magnetos
• Carbs • Starters • Governors
• Fuel Pumps • Boost Pumps
• Maintenance and OH Manuals
CALL FOR BEST OUTRIGHT PRICES!
Sun Air Parts
Ph: 661-257-7708 • Fx: 661-257-7710
26007 Huntington Lane, Valencia, CA 91355
Info@SunAirParts.com
SE HABLA ESPAÑOL



The rather battered original sign is still present.



Menu for the Airport Restaurant, which is known for its elk burgers.

show the young waitresses in their carhop uniforms and the postcard pictures one of them standing on the wing of an airplane serving food to the pilots inside the cockpit (EDITOR'S NOTE: This is the postcard on Page 98 in the April “Airlines”).

The restaurant is currently owned by Al Swineforth, who commented, “Mike Pence came in here all the time before he became vice-president. He used to hold meetings right over there at the corner table.” The airport closed for good on 1 September 2008. The former runways were leased to a local farmer, who has since planted them with crops. Statistics from the previous year showed that the airport had 2604 general aviation aircraft operations, an average of 217 per month. Al commented about the closing, “I lost $100,000 overnight.” Like most restaurants, the Covid-19 pandemic nearly devastated the Airport Restaurant but with local support they managed to stay afloat.

Thanks to James and Alan for helping fill in the facts on a curious bit of American aeronautical lore. There must be many more stories on aviation-themed Roadside Americana so if you have a story then please let us know.

COLLECTIVE MEMORY

Sadly, your editorial about “Collective Memory” rang true to me. I am retired USAF and well-versed in aviation history. My son has lived in Los Angeles since 1997 so I have visited there many times. During my early visits, I showed him the sites of many of the former builders of aircraft for “The Arsenal of Democracy.” Notice I used the term “sites” because most of the factories are no longer there. For example, the two Lockheed sites located next to Hollywood-Burbank Airport and near downtown Burbank are gone, replaced by airport parking and a large strip mall, respectively. Only the signs marking the strip mall along North Victory Place (an ironic name nowadays) are a reminder of the huge Lockheed factory that was once there. The signs feature a P-38, an F-80, a Constellation, and an SR-71. I'm sure that the meaning of those signs is lost on the millions of people who drive by yearly, if they even care to look. The story of the former Douglas factory at Clover Field, excuse me, Santa Monica Airport, is just as sad. The factory is gone, replaced by office buildings and houses, and the city elders would love to close the airport. The same can be said for most of the other aircraft factories (North American, Vultee, etc.) in the Los Angeles area — gone and forgotten.

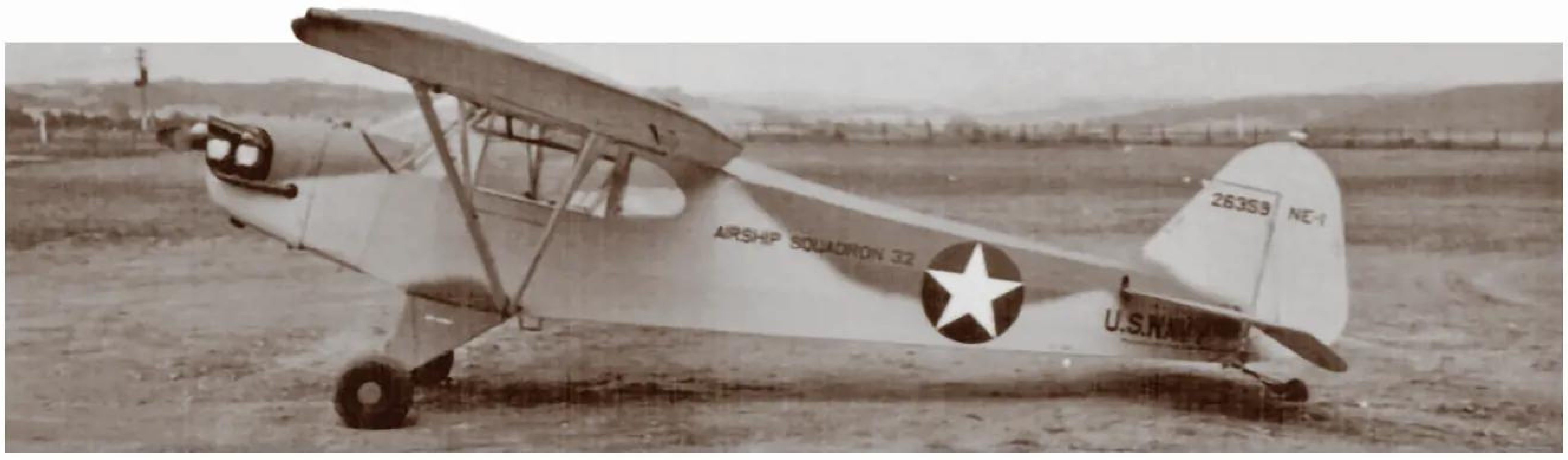
Michael P. Hoffman
Windcrest, TX

EDITOR'S NOTE: Mr. Hoffman is quite correct. Since we are based in southern California, we have certainly noted the destruction of all these once-mighty factories. The strip mall where Lockheed used to be is now riddled with closed stores, gang activity, homeless camps, and illegal aliens. It is not a safe place yet the city bureaucrats evidence a certain smugness about the factory being gone along with thousands of middle-class jobs. Oddly, on the south side of the airfield it is a somewhat different story. The thousands of small bungalows that were built to house wartime workers have now become trendy places for the young of Hollywood and are selling for well over a million dollars each. There is absolutely no mention of the massive Lockheed facility nor of the dozens of smaller businesses that fed the factory with parts and components. Going down some of the side streets, one can still find some evidence of wartime signage on a few of the buildings but there are no plaques or memorials. I once tried to get the city to place a small memorial at the site of Dick Bong's crash. They had no idea what I was talking about and displayed a complete indifference.

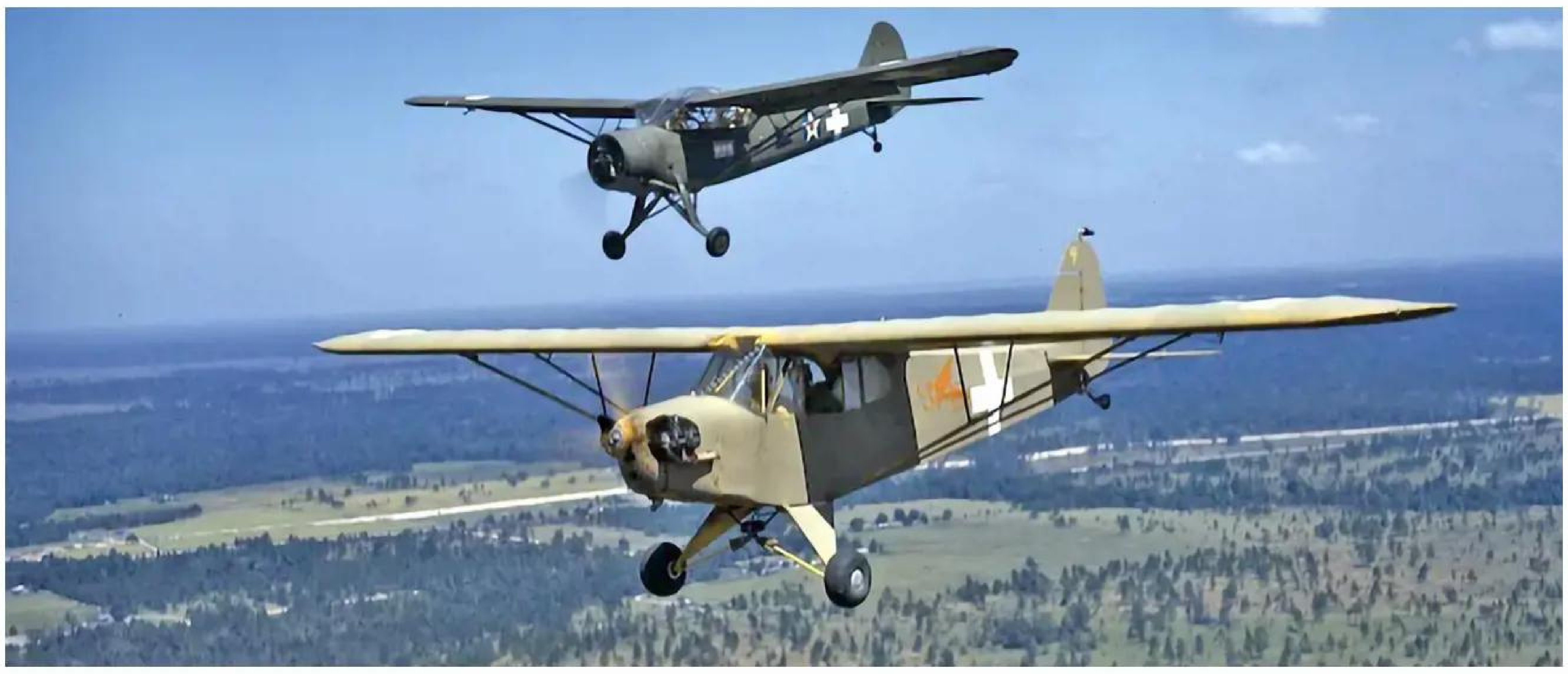
THOSE NAVY PIPERS

Thanks for the article on *Glimpy* — a phase of WWII on which I knew very little. I have a bare bones Piper J-3 restoration project that I am just getting ready to start. The project is a mixture of parts from different airframes so your article started me thinking on how to refinish the plane when completed. Of course, it could be in the standard Piper yellow with the classic black lightning bolt down the fuselage sides but *Glimpy* got me looking in a couple other directions and I found a few interesting photos I thought I would share with readers.

Most of the historical sources agree on the number of NE-1s acquired by the Navy but the NE-2s are more problematic. Were these aircraft supplied as kits or as complete airframes? The serials are rather confusing plus


26359 NE-1
AIRSHIP SQUADRON 32
U.S.NAVY

Camouflaged NE-1 BuNo 26359 also assigned to Airship Squadron 32 displays earlier national insignia along with a completely different location for the markings.

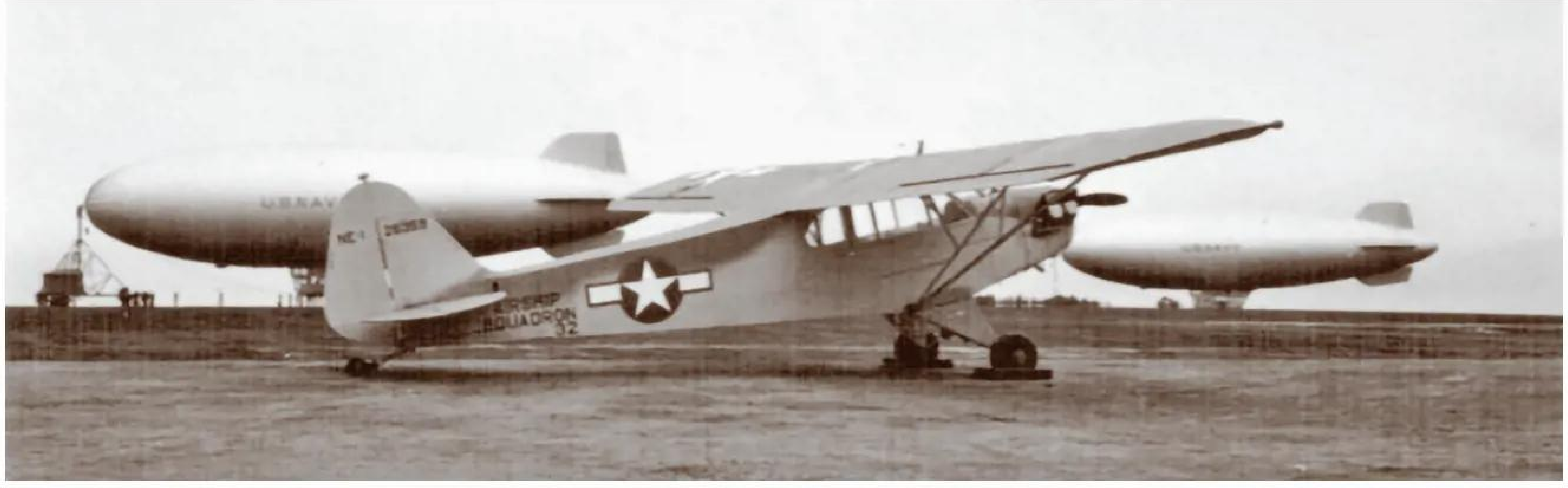


Mr. Janes also noted that he was considering a war games scheme for his Cub. This photograph was taken by Hans Groenhoff, a well-known aviation photographer of the 1930s. It depicts what was a J-3C, probably on loan to the Army since it carried the experimental civil license of NX38505. Photographed during the massive 1941 Louisiana War Games, the aircraft carries the white cross used in the operation and is in company with a Stinson O-49 (later L-1). The Cub has been sprayed in an approximation of Olive Drab and should be compared to the Olive Drab of the Stinson.

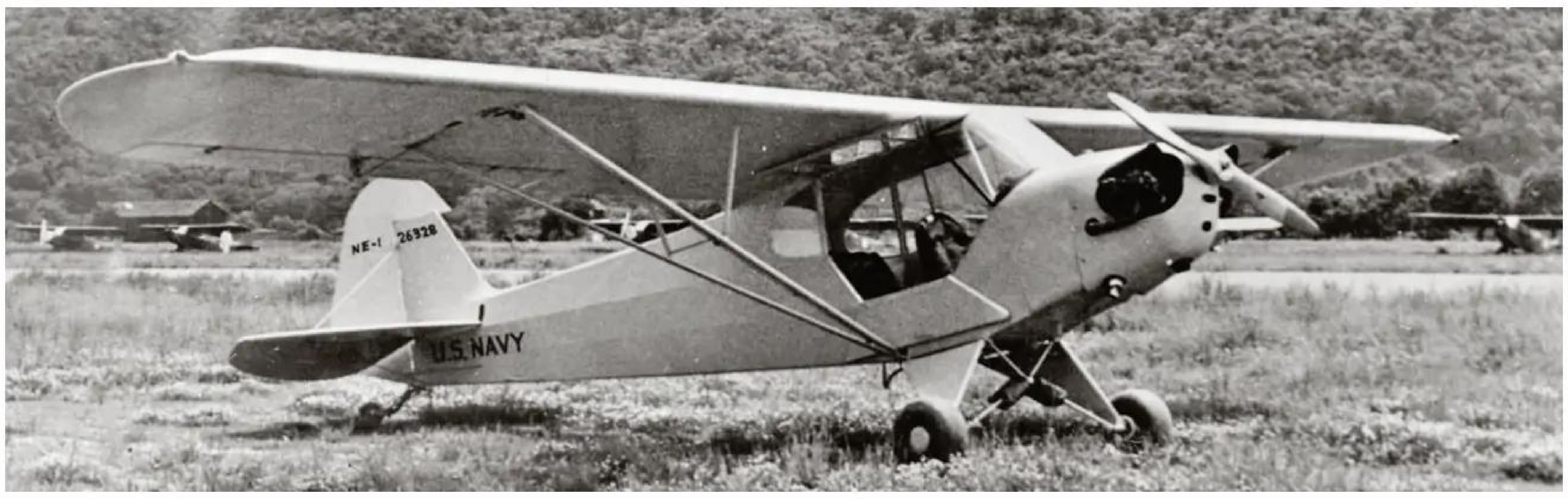
there is not much in the way of NE-2 photography. Then, as you can see from the prints, there appears to be no standardization of paint schemes and I am hoping that readers can point me in the way of correct colors. The use of light aircraft during the Second World War has not been particularly well documented and I can certainly use some help. How about a full article on the L-Birds in a future issue?

Bill Janes
Reedley, CA

AC


NE-1 26359
AIRSHIP SQUADRON 32

Mr. Janes' photo of a Piper NE-1 assigned to Airship Squadron 32 makes for an interesting paint scheme. However, we have not been able to find a camouflage document for the NE-1 in our files nor any color photos so readers can aid in this quest. Perhaps, and we stress perhaps, the aircraft was finished in Dark Gull Gray over Gloss White which was sort of the standard anti-sub scheme but the main color does not appear to be white nor gloss when compared to the national insignia.


NE-1 26328
U.S.NAVY

NE-1 BuNo 26328 parked at possibly an overseas Pacific airfield with a row of other Pipers and Stinson L-5s in the background. The overall light color of the Cub indicates it was either in Piper yellow or perhaps a sprayed aluminum finish.

COMPLETE YOUR COLLECTION!

AIR CLASSICS
MOSQUITO MISSION
PORT MORESBY'S COBRAS
WAR OF THE WINGED TORPEDOES
VINTAGE WINGS OVER OREGON
DAWN OF A HELLCAT
OPERATION MOOLAH
DAY OF THE PRIVATEER
FAILED PHOENIX
FLIGHT OF GLIMPY
BOEING'S DEATH ANGEL
WARBIRDS OF BLIDA
RUBBER DUCKS
"FILL 'ER UP!"
COLORS OF WAR

CALL 818-700-6868

WE KEEP THE WARBIRDS FLYING!

DON FISHER FLYING THE CWHM'S AVRO LANCASTER.
PHOTOGRAPHY BY DOUG FISHER

OUR V-12 ENGINES ARE KEEPING MANY OF THE WORLD'S HISTORIC AIRCRAFT FLYING ON A REGULAR BASIS

AT VINTAGE V-12s WE OFFER RELIABILITY AND PERFORMANCE

VINTAGE V-12s HAS OVERHAULED/REPAIRED OVER ONE THOUSAND V-12 POWERPLANTS!

WE CAN AID YOU BY SUPPLYING EVERYTHING FROM COMPLETE ENGINES
TO THE SMALLEST COMPONENTS

VINTAGE V12s TEHACHAPI, CALIFORNIA

CONTACT: JOSE FLORES
VINTAGE V-12s, Inc.
1582 Goodrick Drive #1, Tehachapi, CA 93561
Phone: 661-822-3112 • Fax: 661-822-3120
VISIT OUR WEBSITE: www.vintageV12s.com

MCDONNELL
NF-101A
VOODOO

U.S. AIR FORCE
0-32422

MCDONNELL NF-101A VOODOO
LOCKHEED L-749A CONSTELLATION
GENERAL MOTORS TBM-3E AVENGER
EMBRAER AT-27 TUCANO
LOCKHEED P-3C CDU ORION
PLANETAGS
GENUINE SKIN LIMITED EDITION

PlaneTags are created from authentic aviation skins.
Visit our collection at www.planetags.com or download the mobile app.

ANDROID APP ON Google play

Download on the App Store

PLANETAGS.COM

MOTOART PLANETAGS LLC | TORRANCE, CA 90501